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OM protein - protein search, using sw model

Run on: June 9, 2005, 13:00:54 / Search time 44 Seconds
(without alignments)
1355.559 Million cell updates/sec

Title: US-10-018-418A-4

Perfect score: 4276

Sequence: 1 MSSAVASAFSLASASPG.....SMEHAKLYEDVLKAKYQW 799

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 513545 seqs, 74649064 residues

Total number of hits satisfying chosen parameters: 513545

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

Issued Patents AA:*
1: /cgn2_6/ptodata/1/1aa/5A.COMB.pep:*
2: /cgn2_6/ptodata/1/1aa/5B.COMB.pep:*
3: /cgn2_6/ptodata/1/1aa/6A.COMB.pep:*
4: /cgn2_6/ptodata/1/1aa/6B.COMB.pep:*
5: /cgn2_6/ptodata/1/1aa/PTUS.COMB.pep:*
6: /cgn2_6/ptodata/1/1aa/backfiles1.pep:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	4075	95.3	799	3	US-09-196-390-6
2	4075	95.3	799	4	US-09-952-677-6
3	2432	56.9	669	3	US-08-941-445A-9
4	2314.5	54.1	698	3	US-08-941-445A-11
5	2163	50.6	801	4	US-09-388-743-26
6	2163	50.6	801	4	US-10-044-543-26
7	2150.5	50.3	767	3	US-08-836-567-8
8	2150.5	50.3	767	4	US-09-606-304-8
9	2063	48.2	690	4	US-09-388-743-6
10	2063	48.2	690	4	US-10-044-543-6
11	2059	48.2	558	3	US-08-836-567-6
12	2059	48.2	558	4	US-09-606-304-6
13	1201.5	28.1	649	3	US-09-192-909-2
14	1201.5	28.1	649	4	US-09-931-297-2
15	1176	27.5	641	3	US-08-836-567-10
16	1176	27.5	641	4	US-09-606-304-10
17	1138.5	26.6	671	4	US-09-196-390-2
18	1138.5	26.6	671	4	US-09-952-677-2
19	1066	24.9	583	3	US-08-941-445A-13
20	1051.5	24.6	539	3	US-08-941-445A-11
21	1004.5	23.5	459	3	US-08-836-567-4
22	1004.5	23.5	459	4	US-09-606-304-4
23	907	21.2	616	4	US-09-388-743-14
24	907	21.2	616	4	US-10-044-543-14
25	885	20.7	615	4	US-09-388-743-2
26	885	20.7	615	4	US-10-044-543-2
27	869	20.3	533	3	US-08-941-445A-5

28	869	20.3	604	4	US-09-731-166-4	Sequence 4, Appli
29	867	20.3	600	4	US-09-388-743-22	Sequence 22, Appl
30	867	20.3	600	4	US-10-044-543-22	Sequence 22, Appl
31	862	20.2	609	3	US-08-941-445A-7	Sequence 7, Appli
32	841	19.7	614	4	US-09-388-743-18	Sequence 18, Appl
33	841	19.7	614	4	US-10-044-543-18	Sequence 18, Appl
34	770.5	18.0	484	4	US-09-107-433-4468	Sequence 4468, Ap
35	766.5	17.9	477	4	US-09-583-110-3812	Sequence 3812, Ap
36	706	16.5	479	4	US-09-902-540-14647	Sequence 14647, A
37	607	14.2	511	4	US-09-489-039A-11033	Sequence 11033, A
38	599	14.0	477	1	US-07-735-065-2	Sequence 2, Appli
39	599	14.0	477	1	US-08-469-202-12	Sequence 12, Appl
40	599	14.0	477	2	US-08-484-434C-12	Sequence 12, Appl
41	599	14.0	477	4	US-09-384-361-12	Sequence 12, Appl
42	587.5	13.7	533	4	US-09-388-743-10	Sequence 10, Appl
43	587.5	13.7	533	4	US-10-044-543-10	Sequence 10, Appl
44	572.5	13.4	735	3	US-09-115-704-2	Sequence 2, Appli
45	572.5	13.4	735	4	US-09-780-115-2	Sequence 2, Appli

ALIGNMENTS

RESULT 1
US-09-196-390-6
Sequence 6, Application US/09196390
Patent No. 6307125
GENERAL INFORMATION:
APPLICANT: Block, Martina
APPLICANT: Lortz, Horst
APPLICANT: Luticke, Stephanie
APPLICANT: Walter, Lennart
APPLICANT: Froberg, Claus
APPLICANT: Kosmann, Jens
TITLE OF INVENTION: NUCLEIC ACID MOLECULES ENCODING ENZYMES
TITLE OF INVENTION: FROM WHEAT WHICH ARE INVOLVED IN STARCH
TITLE OF INVENTION: SYNTHESIS
NUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESSES:
ADDRESSER: James F. Haley, Jr., c/o Fish & Neave
STREET: 1251 Avenue of the Americas
CITY: New York
STATE: New York
COUNTRY: United States of America
ZIP: 10020
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30 (BPO)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/196.390
FILING DATE:
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: DE 196 21 588.9
FILING DATE: 29-MAY-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: DE 196 36 917.7
FILING DATE: 11-SEP-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/EP97/02793
FILING DATE: 28-MAY-1997
ATTORNEY/AGENT INFORMATION:
NAME: Haley, Jr., James F.
REGISTRATION NUMBER: 27,794
REFERENCE/DOCKET NUMBER: AGREVO-9
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 596-9000
TELEFAX: (212) 596-9090
INFORMATION FOR SEQ ID NO: 6:
SEQUENCE CHARACTERISTICS:
LENGTH: 799 amino acids

TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-09-196-390-6

Query Match 95.3%; Score 4075; DB 3; Length 799;
Best Local Similarity 95.6%; Pred. No. 0;
Matches 764; Conservative 7; Mismatches 28; Indels 0; Gaps 0;

QY 1 MSSAVASASFLALASASPGSRRRRARVSAPPHPHAGRLHWPMPPTORTADGVAAARA 60
DB 1 MSSAVASASFLALASASPGSRRRRARVSAPPHPHAGRLHWPMPPTORTADGVAAALA 60
QY 61 ACKKDARVDDDAASAROPRARSGAATKYAERRDPVKTLDRAAEAGAPAPAPRODAAR 120
DB 61 ACKKDAIGIDDAASVROPALRGGAATKYAERRDPVKTLDRAAEAGGSPAPAAODAAAR 120
QY 121 PPSMNGTPVNGENKSTGGGATKDSGLPAPAPAPHPSTONRVPVNGENKANYASPTTSTA 180
DB 121 PPSMNGMPVNGENKSTGGGATKDSGLPTPAPAPHPSTONRAPVNGENKANYASPTTSTA 180
QY 181 EVVAPDSATTSISDAPESVVPAAKPPSSGSNFVVSASAPRLDISDVEBELKKGAVI 240
DB 181 EAAASDSATTSISDAPESVVPAAKTPSSSGSNFESSASAPGSDTVSVEQELKKGAVV 240
QY 241 VEEAPPKALSPPAAPAVOEDLMDFKYTGFEPEVPAKDDGNAVADDAAGSFEHQNHDSG 300
DB 241 VEEAPPKALSPPAAPAVOEDLMDFKYTGFEPEVPAKDDGNAVADDAAGSFEHQNHDSG 300
QY 301 PLAGENVNVVVAACECPWCKTGGLGVAGALPKALAKRGHRVWVVPVRYGYEAYDV 360
DB 301 PLAGENVNVVVAACECPWCKTGGLGVAGALPKALAKRGHRVWVVPVRYGYEAYDV 360
QY 361 GVRKYKKAAGOMENVYFHAATIDGVFVFIADPLFHRROBDIYGGSRQIMRMILFCKA 420
DB 361 GVRKYKKAAGOMENVYFHAATIDGVFVFIADPLFHRROBDIYGGSRQIMRMILFCKA 420
QY 421 AVEVPMHVCGGVYDGNLVIPIANDMHTALLPVYLKAYRBDHGLMQYRSIMVINIAH 480
DB 421 AVEVPMHVCGGVYDGNLVIPIANDMHTALLPVYLKAYRBDHGLMQYRSIMVINIAH 480
QY 481 QGRGPVDEPFTLEPEHYLEHFRLYDPVGEHANYPEAAGIKMAQVYVVSFGYLMELKTIV 540
DB 481 QGRGPVDEPFTLEPEHYLEHFRLYDPVGEHANYPEAAGIKMAQVYVVSFGYLMELKTIV 540
QY 541 EGGMGILHDIIRQNDMKTIRGIVNGIDMENNPEVDALIKSDGYTNFSLRTLDGKROCKEA 600
DB 541 EGGMGILHDIIRQNDMKTIRGIVNGIDMENNPEVDALIKSDGYTNFSLRTLDGKROCKEA 600
QY 601 LQREIGLQVRADVPILGFIQLDQCKGVELIADAMWIVSODVQVLMGTGRHDLSEMLR 660
DB 601 LQREIGLQVRADVPILGFIQLDQCKGVELIADAMWIVSODVQVLMGTGRHDLSEMLR 660
QY 661 HFEREHNDYKRGVGVSVLARIHTAGADALLMPSRFEPCGLNQLYAMA YGTVPVHAAG 720
DB 661 HFEREHNDYKRGVGVSVLARIHTAGADALLMPSRFEPCGLNQLYAMA YGTVPVHAAG 720
QY 721 GVRDTPVPDPFPHSGLGTFDRAEAHAKLIEALGHLRTYRDYKESWRGLQERGMQDS 780
DB 721 GVRDTPVPDPFPHSGLGTFDRAEAHAKLIEALGHLRTYRDYKESWRGLQERGMQDS 780
QY 781 WEHAATLYEDVLLKAKYOM 799
DB 781 WEHAATLYEDVLLKAKYOM 799

RESULT 2
US-09-952-677-6

Sequence 6, Application US/09952677
Patent No. 6734339
GENERAL INFORMATION:
APPLICANT: Bloetz, Martina
Lorz, Horst

Luticke, Stephanie
Walter, Lennart
Proberg, Claus
Kosmann, Jens
TITLE OF INVENTION: NUCLEIC ACID MOLECULES ENCODING ENZYMES
FROM WHEAT WHICH ARE INVOLVED IN STARCH
SYNTHESIS
NUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESS:
ADDRESSEE: James F. Haley, Jr., c/o Fish & Neave
STREET: 1251 Avenue of the Americas
CITY: New York
STATE: New York
COUNTRY: United States of America
ZIP: 10020
COMPUTER READABLE FORM:
MEDIUM TYPE: floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30 (EPO)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/952,677
FILING DATE: 14-Sep-2001
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 09/196,390
FILING DATE: 19-No. 6734339-1998
APPLICATION NUMBER: DE 196 21 588.9
FILING DATE: 29-MAY-1996
APPLICATION NUMBER: DE 196 36 917.7
FILING DATE: 11-SEP-1996
APPLICATION NUMBER: PCT/EP97/02793
FILING DATE: 28-MAY-1997
ATTORNEY/AGENT INFORMATION:
NAME: Haley, Jr., James F.
REGISTRATION NUMBER: 27,794
REFERENCE/DOCKET NUMBER: AGREVO-9
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 596-9000
TELEFAX: (212) 596-9090
INFORMATION FOR SEQ ID NO: 6:
SEQUENCE CHARACTERISTICS:
LENGTH: 799 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 6:
US-09-952-677-6

Query Match 95.3%; Score 4075; DB 4; Length 799;
Best Local Similarity 95.6%; Pred. No. 0;
Matches 764; Conservative 7; Mismatches 28; Indels 0; Gaps 0;

QY 1 MSSAVASASFLALASASPGSRRRRARVSAPPHPHAGRLHWPMPPTORTADGVAAARA 60
DB 1 MSSAVASASFLALASASPGSRRRRARVSAPPHPHAGRLHWPMPPTORTADGVAAALA 60
QY 61 ACKKDARVDDDAASAROPRARSGAATKYAERRDPVKTLDRAAEAGAPAPAPRODAAR 120
DB 61 ACKKDAIGIDDAASVROPALRGGAATKYAERRDPVKTLDRAAEAGGSPAPAAODAAAR 120
QY 121 PPSMNGTPVNGENKSTGGGATKDSGLPAPAPAPHPSTONRVPVNGENKANYASPTTSTA 180
DB 121 PPSMNGMPVNGENKSTGGGATKDSGLPTPAPAPHPSTONRAPVNGENKANYASPTTSTA 180
QY 181 EVVAPDSATTSISDAPESVVPAAKPPSSGSNFVVSASAPRLDISDVEBELKKGAVI 240
DB 181 EAAASDSATTSISDAPESVVPAAKTPSSSGSNFESSASAPGSDTVSVEQELKKGAVV 240
QY 241 VEEAPPKALSPPAAPAVOEDLMDFKYTGFEPEVPAKDDGNAVADDAAGSFEHQNHDSG 300
DB 241 VEEAPPKALSPPAAPAVOEDLMDFKYTGFEPEVPAKDDGNAVADDAAGSFEHQNHDSG 300
QY 301 PLAGENVNVVVAACECPWCKTGGLGVAGALPKALAKRGHRVWVVPVRYGYEAYDV 360

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Db 301 PLAGENVANVVAECSPMCKTGIGDVAGALPKALAKRGHVVVVPRYGDEYEAADV 360
Qy 361 GVRKYYKAAGDMENVFAHYTDGVDVFIADPLFRHOEDYIGSSROEIMKRMILFCKA 420
Db 361 GVRKYYKAAGDMENVFAHYTDGVDVFIADPLFRHOEDYIGSSROEIMKRMILFCKA 420
Qy 421 AVEVPMHVCPCGVPYGDGDLVFIANDMHTALLPVYLKAYRDHGLMOYTRSIIMVINTAH 480
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Db 661 HFEREHDKVRGWGFSVRLAHRITAGADALIMPSPFCGLNOLYANAYGTVPVHAAYG 720
Qy 721 GVRDTPVPFPDPNHSGLMTFDRABAHKLEALGHCLTTRYDYKSMGLOERGSQDPS 780
Db 721 GVRDTPVPFPDPNHSGLMTFDRABAHKLEALGHCLTTRYDYKSMGLOERGSQDPS 780
Qy 781 MEHAALYEDVLLKAKYOM 799
Db 781 MEHAALYEDVLLKAKYOM 799

RESULT 3
US-08-941-445A-9
; Sequence 9, Application US/08941445A
; Patent No. 6107060
; GENERAL INFORMATION:
; APPLICANT: Keeling, Peter
; APPLICANT: Guan, Hanning
; TITLE OF INVENTION: Starch Encapsulation
; NUMBER OF SEQUENCES: 37
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Greenlee, Wimer and Sullivan, P. C.
; STREET: 5370 Manhattan Circle
; CITY: Boulder
; STATE: CO
; COUNTRY: US
; ZIP: 80303
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/941.445A
; FILING DATE: 30-SEP-1997
; CLASSIFICATION: 800
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/026,855
; FILING DATE: 30-SEP-1996
; ATTORNEY/AGENT INFORMATION:
; NAME: Wimer, Ellen P
; REGISTRATION NUMBER: 28,547
; REFERENCE/DOCKET NUMBER: 89-97
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (303) 499-8080
; TELEFAX: (303) 499-8089
; INFORMATION FOR SEQ ID NO: 9:
; SEQUENCE CHARACTERISTICS:
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; LENGTH: 669 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-941-445A-9
Query Match 56.9%; Score 2432; DB 3; Length 669;
Best Local Similarity 65.0%; Pred. No. 1.56-214;
Matches 486; Conservative 58; Mismatches 120; Indels 84; Gaps 12;

Qy 57 AARAAGKADAVDDDAASAROPRARCGAATKVAERDPEVKTLDRAAGCAPAPAPRQ 116
Db 1 AEAAGCKADAPERSGDAARLPARRNA--VSKRRDPLQ----- 37
Qy 117 DAARPPMNGPVPVNGKSTGCGGATKDSGLPAPARAHPSTONRVPV--GENKANVA 173
Db 38 -----PVRYSATGN-----TARTGAASQNALADVEIVEIKSTVA 75
Qy 174 SPTSLAEVVAADAAATISISDKAPESVPAEKPPSSGSNFVVSASAPRLDIDVPE 233
Db 76 APFTSYKFPGRGLQDDPSLMDIAPETVLPAPKILHS-----PAVDGDN----- 121
Qy 234 LKKGAVIVEAPNPKALSPPAA-DAVQEDLWDFKKYIGFEEBPVEAKDGMVAADAGSFE 292
Db 122 -----GLAPFVEPLVQBATWDFKKYIGFDEPDEBAKDSRVGADAGSFE 166
Qy 293 HHQNHDSGPLAGENVVNVVVAACSPMCKTGIGDVAGALPKALAKRGHVVVVPRYG 352
Db 167 HYGTMILG-LCGENVVNVVVAACSPMCKTGIGDVAGALPKALAKRGHVVVVPRYG 225
Qy 353 DYEAAYDVGVARKYYKAAGDMENVFAHYTDGVDVFIADPLFRHOEDYIGSSROEIMK 412
Db 226 DYEAAYDVGVARKYYKAAGDMENVFAHYTDGVDVFIADPLFRHOEDYIGSSROEIMK 284
Qy 413 RMILFCKAAVEVPMHVCPCGVPYGDGDLVFIANDMHTALLPVYLKAYRDHGLMOYTRSI 472
Db 285 RMILFCKAAVEVPMHVCPCGVPYGDGDLVFIANDMHTALLPVYLKAYRDHGLMOYTRSI 344
Qy 473 MVINTIAHQGRGPDEPFTTELPEHYLEHFRLYD PVGGEHANYFAAGLXKADQVVVVS 531
Db 345 LVHNHIGQGRGPDEPFTTELPEHYLEHFRLYD PVGGEHANYFAAGLXKADQVVVVS 404
Qy 532 GYLWELKTVBEGGGLHIIIRONDKTKGIYNGIDNMENPREVDVHLKSDYTNSTSLGTL 591
Db 405 GYLWELKTVBEGGGLHIIIRONDKTKGIYNGIDNMENPREVDVHLKSDYTNSTSLGTL 464
Qy 592 SGKQCKEALOREBELGLVRAADVPLGLFTIGRLDGQKGYEIIADAMPWIVSODVOLV 651
Db 465 AGKQCKAALQORDVGLERDVPPLGLFTIGRLDGQKGYEIIADAMPWIVSODVOLV 524
Qy 652 RHDLSEMLRPEREHDKVRGWGFSVRLAHRITAGADALIMPSPFCGLNOLYANAYG 711
Db 525 PPDLEMLQHLERHHPKVRGWGFSVRLAHRITAGADALIMPSPFCGLNOLYANAYG 583
Qy 712 TVPVVHAAGVGRDVPFPDPNHSGLMTFDRABAHKLEALGHCLTTRYDYKSMGLO 771
Db 584 TVPVVHAAGVGRDVPFPDPNHSGLMTFDRABAHKLEALGHCLTTRYDYKSMGLO 643
Qy 772 ERGMSODFSMEHAALYEDVLLKAKYOM 799
Db 644 ARGMSQNLSDMHAALYEDVLL--KYOM 669

RESULT 4
US-08-941-445A-11
; Sequence 11, Application US/08941445A
; Patent No. 6107060
; GENERAL INFORMATION:
; APPLICANT: Keeling, Peter
; APPLICANT: Guan, Hanning
; TITLE OF INVENTION: Starch Encapsulation
; NUMBER OF SEQUENCES: 37
; CORRESPONDENCE ADDRESS:
```

```
ADDRESSER: Greenlee, Winner and Sullivan, P. C.
STREET: 5370 Manhattan Circle
CITY: Boulder
STATE: CO
COUNTRY: US
ZIP: 80303
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/941,445A
FILING DATE: 30-SEP-1997
CLASSIFICATION: 800
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/026,855
FILING DATE: 30-SEP-1996
ATTORNEY/AGENT INFORMATION:
NAME: Winner, Ellen P
REGISTRATION NUMBER: 28,547
REFERENCE/DOCKET NUMBER: 89-97
TELECOMMUNICATION INFORMATION:
TELEPHONE: (303) 499-8080
TELEFAX: (303) 499-8089
INFORMATION FOR SEQ ID NO: 11:
SEQUENCE CHARACTERISTICS:
LENGTH: 698 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-941-445A-11

Query Match      54.1%; Score 2314.5; DB 3; Length 698;
Best Local Similarity 57.9%; Pred. No. 1e-203;
Matches 468; Conservative 76; Mismatches 145; Indels 119; Gaps 15;

1 MSSAVASAFPLALASAPGRSRRARVGA---PPHAGAG-RLHWP-FWPPORTARDOG 55
1 MEGALISSSSAFLLPVAHSSPPRRKSGVGAALRSYCSAEIRLHMARGPQ-----DGA 56
56 VAAAAAGKDAVDDDA---SAROPRARRGAAATKVAERDPVKTLDRAAEGGAPAP 112
57 ASVRAAAAPAGGESEEAASSSSQAGVQSGTAKAV-----DSASPPPLTS 104
113 AARODAAAPPMNGTTPVNGENKSTGGCGATXDSGLPARAPAPHSQNRVNVNGENKANV 172
105 AAKQ-----SQSAMQNG---TSGGSSASTAAPVSGP-KADHPS----- 139
173 ASPTPTIAEVNPDASATISIDKAPESVVPAAKPPSSSGSNFVVSASAPRLDIDSDVP 232
140 -----APVTKREIDAS-----AVKPPAG-----DANP 163
233 ELKKAIVIEEAPNPKALSPPAAPAVOEDLWDFKTYIGFEEVPEAKDGMVAADAGSFE 292
164 -----YES-----IGIAEPVDAKADAAPATAAASAP 190
293 H-HQNHDSPLAGENVNNTVVVAABGSPWCKTGGLGVAGALPKLAKRGHVVVVVPPX 351
191 YRENDIEPPLAGPNVNNVVVAASECAPCKTGGLGVAGALPKLAKRGHVVVVVIPPY 250
352 GDYEAYDVGVRRKYKKAAGODMEVNFHAYIDGVDFEFLADPLFRHRODIIYGSRQEI 411
251 GEYAEAKRDGVRRKYKKAAGODSEVTFHAYIDGVDFEFLADPLFRHNNHNYIGGERL 310
412 KEMILFCKAAVEVPMHVPCCGVVYDGNLVFILANDMHTALLPVYLKAYYRDHGLMQYTS 471
311 KEMILFCKAAVEVPMHVPCCGVVYDGNLVFILANDMHTALLPVYLKAYYRDHGLMQYTS 370
472 INVHINIAHQGRGVDFEFLTEHFRLYDVPVGEHANVPAAGAKMAQOVVNVSP 531
371 VLVHINIAHQGRGVDFEFLTEHFRLYDVPVGEHANVPAAGAKMAQOVVNVSP 430
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532 GYLWELKTEGGWGLHDIIRQNDKTRGIVNGIDNMENPVEDVHLKSDGYTFNSLGLTD 591
431 GYMWELKTEGGWGLHDIIRQNDKTRGIVNGIDNMENPVEDVHLKSDGYTFNSLGLTD 490
592 SGKQCKEALORBLGLQVRAVPLPLGLDQKGVETIADAMPWIVSQOVOLVMTGT 651
491 TQKQCKEALORBLGLQVRAVPLPLGLDQKGVETIADAMPWIVSQOVOLVMTGT 550
652 RHDLESMLRFRERHDDKVRGMVGSVRLARITAGADALIMPSPFEPGILNOLYAMAYG 711
551 RADLEDMLRFRERHDDKVRGMVGSVRLARITAGADALIMPSPFEPGILNOLYAMAYG 610
712 TVPVHAGVGRDTPVPPFPNHSGLGTFDPAEAKHLIEALGHCLRTYDYKESWRLQ 771
611 TVPVHAGVGRDTPVPPFPNHSGLGTFDPAEAKHLIEALGHCLRTYDYKESWRLQ 670
772 ERGMSQDPSWEHAATLYEDVLLKAKYQW 799
671 ARGMAEDLSMDHAALYEDVLLKAKYQW 698

RESULT 5
US-09-388-743-26
Sequence 26, Application US/09388743
Patent No. 6423886
GENERAL INFORMATION:
APPLICANT: Singletary, George
TITLE OF INVENTION: No. 6423886el Starch Synthase Polynucleotides and Their
FILE REFERENCE: 1144
CURRENT APPLICATION NUMBER: US/09/388,743
CURRENT FILING DATE: 1999-09-02
NUMBER OF SEQ ID NOS: 28
SOFTWARE: FastSeq for Windows Version 3.0
SEQ ID NO 26
LENGTH: 801
TYPE: PRT
ORGANISM: Typha latifolia
US-09-388-743-26

Query Match      50.6%; Score 2163; DB 4; Length 801;
Best Local Similarity 60.7%; Pred. No. 1.1e-189;
Matches 426; Conservative 84; Mismatches 151; Indels 41; Gaps 9;

134 KSTGGGATKXG--LPAPAPHSQNRVNVNGENKANVASPTSTIAEVAAPDSATI 191
21 RATGSGSFEEBEGEVRGAGVGDALRATIDKSN--ILAHSNLLOQIAKKNIVS 78
192 SI-SKAPD-----SVPAEKPPSSG-----SNFVSA-- 219
79 SIRSDVTKEENDSSLYVEKENLEPSSGEONGKYSGAVNNYSQALQODTSBNPLVNSFG 138
220 SAPRLDIDSDVPEBLKGAIVIEEAPNPKALSP--AAPAVOEDLWDFKTYIGFEEVPEA 277
139 GSPKDNVEA-VEFYRQSAVDAFGRRPEPSSGTGTLKILSPFYLEASDCAKENADLVEA 197
278 KODGAVAVDDAGSEFHHQNHDSPLAGENVNNTVVVAABGSPWCKTGGLGVAGALPKAL 337
198 KIDSVAHVDDLNPG--ENEVPLPLAGANVMNIIIVAAECAMSKTGGLGVAGALPKAL 255
338 AKRGHVVVVVPRYDYDEAYDVGVRRKYKKAAGODMEVNFHAYIDGVDFEFLADPLFRH 397
256 ARGRHVVVVVPRYDYDEAYDVGVRRKYKKAAGODMEVTFHAYIDGVDFEFLADPLFRH 315
398 ROEDIIYGSRQEIIMRMILFCKAAVEVPMHVPCCGVVYDGNLVFILANDMHTALLPVYLK 457
316 KGNRIYEGNRVDIILKRMILFCKAAVEVPMHVPCCGVVYDGNLVFILANDMHTALLPVYLK 375
458 AYVRPHGLMQYTSIMVHINIAHQGRGVDFEFLTEHFRLYDVPVGEHANVPAAGAKMAQ 517
376 AYVRPHGLMQYTSIMVHINIAHQGRGVDFEFLTEHFRLYDVPVGEHANVPAAGAKMAQ 435
```


Qy 518 AGLKRAOVVVVSPGYLMEKLTVEGCGWGLHDIIRONDKTGTGIVNGIDNMENPEVDVHL 577
Db 436 AGLKTAADVVTYVSHGYAMELKTSEGGWGLHEIIRNSNMKFQIGIYNGIDAKEMSPFEDVHL 495
Qy 578 KSDGTNLSLTLDGSKRQCKEALQRELGQVRAVPLIFGRIDGQKVEIITADAMPW 637
Db 496 KSDGTNLSLTLDGSKRQCKEALQRELGQVRAVPLIFGRIDGQKVEIITADAMPW 555
Qy 638 IVSDVQVLMGTGGRHDLSEMLRHFREHDKVRGWGFSVRLAHRTAGADALIMPSRF 697
Db 556 IVSHDVQVLMGTGGRHDLSEMLRHFREHDKVRGWGFSVRLAHRTAGADALIMPSRF 615
Qy 698 EPCGINOLYAMAYGTIPVHAHVGVDRTPPEPDPNHSGLGWTFRABAKHLEALGHCL 757
Db 616 EPCGINOLYAMAYGTIPVHAHVGVDRTPPEPDPNHSGLGWTFRABAKHLEALGHCL 675
Qy 758 RTYDYKESWRGLQERGMSSOPFSWEHAKLYEDVLLKAKYOM 799
Db 676 NTYWNKYKDSWKGLQTRGMMDLSMDNAAQOYEDVLLVAKYOM 717

RESULT 6

US-10-044-543-26
Sequence 26, Application US/10044543
Patent No. 6734341
GENERAL INFORMATION:
APPLICANT: Singletary, George
APPLICANT: Zhou, Ian
TITLE OF INVENTION: No. 6734341el Starch Synthase Polynucleotides
TITLE OF INVENTION: and Their Use in the Production of New Starches
FILE REFERENCE: 1144D
CURRENT APPLICATION NUMBER: US/10/044.543
PRIOR FILING DATE: 2002-01-11
PRIOR APPLICATION NUMBER: 09/388,743
NUMBER OF SEQ ID NOS: 28
SOFTWARE: FastSeq for Windows Version 3.0
SEQ ID NO 26
LENGTH: 801
TYPE: PRT
ORGANISM: Typha latifolia
US-10-044-543-26

Query Match 50.6%; Score 2163; DB 4; Length 801;

Best Local Similarity 60.7%; Pred. No. 1.1e-189; Matches 426; Conservative 84; Mismatches 151; Indels 41; Gaps 9;

Qy 134 KSTGGGATKDSG--LPAPAPAPHPSTQNVVNGENKANVASPTSIAYVADPSATI 191
Db 21 RATGSGSFEEEGERESEGVGAAGDALLRATIDKSN--ILAIHSNLLQIARKNIVS 78
Qy 192 SI--SDKAP-----SVPAEKPPSSG-----SNFVSA-- 219
Db 79 SIRSDVYKEENDSSSYVEKENLEPSSGQNGKYSGAVPNNYSOLAQDPTSENPLVNSFG 138
Qy 220 SAPRLDIDSDVEPLKGAIVVEEAPNKAISP--AAPVQEDLMPKKTIGEPEPEA 277
Db 139 GSPKDNVEA--VEFYVROSADVAFSRPEPISLGTTKIISPFYLEAESDQAKENADELVEA 197
Qy 278 KDDGMAVADDAAGSEEHCKNHDGSLAGENVANVVVAECSPPCKCTGGLGVAGALPKAL 337
Db 198 KLDVNHKXDLNPE--ENEYPLPLAGANVNIIVVAECAPKSTGGLGVAGALPKAL 255
Qy 338 AKRGHVVVVPRVGYDEEAVDVGRKYYKKAAGDMEVNYFHAYIDGVFVIDAPLERH 397
Db 256 ARRGHVVVVPRVGYDEEAVDVGRKYYKKAAGDMEVNYFHAYIDGVFVIDAPLERH 315
Qy 398 RQEDIYGSROEIMKRMILFCKAVEVPMHPCGCVPRGDDNLVFIANDMTALLPYTLK 457
Db 316 RGNRIYEGNRVDILKRMILFCKAVEVPMHPCGCVPRGDDNLVFIANDMTALLPYTLK 375
Qy 458 AYYDHGLMOYTRSIIMVYIHNIAHQGRGVDFPTELEPHLEHFRLYDPVGEHANYFA 517

Db 376 AYYRDNGLMKYARSVLYIHNIAHQGRGVDFPTELEPHLEHFRLYDPVGEHANYFA 435
Qy 518 AGLKRAOVVVVSPGYLMEKLTVEGCGWGLHDIIRONDKTGTGIVNGIDNMENPEVDVHL 577
Db 436 AGLKTAADVVTYVSHGYAMELKTSEGGWGLHEIIRNSNMKFQIGIYNGIDAKEMSPFEDVHL 495
Qy 578 KSDGTNLSLTLDGSKRQCKEALQRELGQVRAVPLIFGRIDGQKVEIITADAMPW 637
Db 496 KSDGTNLSLTLDGSKRQCKEALQRELGQVRAVPLIFGRIDGQKVEIITADAMPW 555
Qy 638 IVSDVQVLMGTGGRHDLSEMLRHFREHDKVRGWGFSVRLAHRTAGADALIMPSRF 697
Db 556 IVSHDVQVLMGTGGRHDLSEMLRHFREHDKVRGWGFSVRLAHRTAGADALIMPSRF 615
Qy 698 EPCGINOLYAMAYGTIPVHAHVGVDRTPPEPDPNHSGLGWTFRABAKHLEALGHCL 757
Db 616 EPCGINOLYAMAYGTIPVHAHVGVDRTPPEPDPNHSGLGWTFRABAKHLEALGHCL 675
Qy 758 RTYDYKESWRGLQERGMSSOPFSWEHAKLYEDVLLKAKYOM 799
Db 676 NTYWNKYKDSWKGLQTRGMMDLSMDNAAQOYEDVLLVAKYOM 717

RESULT 7

US-08-836-567-8
Sequence 8, Application US/08836567
Patent No. 6130367
GENERAL INFORMATION:
APPLICANT: Kosseman, Jens
APPLICANT: Springer, Franziska
APPLICANT: Abel, Gernot
TITLE OF INVENTION: DNA MOLECULES THAT CODE FOR ENZYMES
TITLE OF INVENTION: INVOLVED IN STARCH SYNTHESIS VECTORS BACTERIA TRANSGENIC
NUMBER OF SEQUENCES: 17
CORRESPONDENCE ADDRESS:
ADDRESS: FISH & NEAVE
STREET: 1251 Avenue of the Americas
CITY: New York
STATE: New York
COUNTRY: USA
ZIP: 10020
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/836,567
FILING DATE: 24-JUL-1997
CLASSIFICATION: 800
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/EP95/04415
FILING DATE: 09-NOV-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: DE P 44 41 408.0
FILING DATE: 10-NOV-1994
ATTORNEY/AGENT INFORMATION:
NAME: Haley Jr., James F.
REGISTRATION NUMBER: 27,794
TELECOMMUNICATION INFORMATION:
TELEPHONE: 212-596-9090
TELEFAX: 212-596-9090
INFORMATION FOR SEQ ID NO: 8:
SEQUENCE CHARACTERISTICS:
LENGTH: 767 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-836-567-8

Query Match 50.3%; Score 2150.5; DB 3; Length 767;

Best Local Similarity 54.3%; Pred. No. 1.5e-188;
Matches 426; Conservative 104; Mismatches 188; Indels 67; Gaps 10;

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QY 34 HAGARLMPWPRTADGGVBARAGKQARVDDAASAROPRARGAATVAER 93
   : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 31 HGSSEQMRIRKRVATGENSGEASADESND-LQVTIEKSKYLAQODLLQOIAER 89
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QY 94 DPKTLDRDA-----EGAPA-----PPARODAAAPPSMNGTPVNGENKSTGGGA 141
   : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 90 KYVSSIKSLNAKTYGGSGSLDVIDPDVDKYNVTVPSTATPTDVDKNT----- 144
   : : : : : : : : : : : : : : : : : : : : : : : : : :
QY 142 TKDGLPAPARAPHPSTONRVVNGENKANA---SPTSLAEVVAAPSAATISIDKAP 198
   : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 145 -----PPAISODFVESKREIKRDLADERAPPLSRSSITA-SQISSTVSSKRT 191
   : : : : : : : : : : : : : : : : : : : : : : : : : :
QY 199 ESNVAEKPSPSSGNFVVASAPRLDID---SVEPELKKGAIVIEBAPPKLASPA 254
   : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 192 LN-VPPEPKSSQETLLDVNSRKSIVDPGKKIQSYMPSLRKSSASHVGEONENLEBSS 250
   : : : : : : : : : : : : : : : : : : : : : : : : : :
QY 255 APAVEDLMDFKKTYIGFEEPEAKDDGMAVADDAAGSFEHONHDSGPLAGENVMNVVA 314
   : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 251 AEANET-----EDPVNI-----DEKPPPLAGTVMNIIIVA 282
   : : : : : : : : : : : : : : : : : : : : : : : : : :
QY 315 AECSFWCKTGGIGDVAAGALPKALARGRHVWVVPYGDYEBAYVGVAKTYKAAQOME 374
   : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 283 SECAPWSKTGGIGDVAAGALPKALARGRHVWVVPYGDYEBAYVGVAKTYKAAQOME 342
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QY 375 VNYFPAIDGVDVFIIDAPLFRHROEDTYGSGROEIMKMLFCGAAYVPMHVCGGVP 434
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Db 343 VTYFPAIDGVDVFIIDSHMFRHIGNNITYGSKNVLDLCKMVLFCGAALVPMHVCGGVC 402
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QY 435 YGDGMLVFIANDMHTALLPVYLKAYYRDHGLMQYTRSINVININIAHQGRGPVDEPPEL 494
   : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 403 YGDGMLVFIANDMHTALLPVYLKAYYRDHGLMQYTRSINVININIAHQGRGPVDEPPEL 462
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QY 495 PEHYLEHFLYDPVGEHANYPAGIKMADQVNVVSPGYLMELKTYEGGWGLHDIIROND 554
   : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 463 PEHYLEHFLYDPVGEHANYPAGIKMADQVNVVSPGYLMELKTYEGGWGLHDIIROND 522
   : : : : : : : : : : : : : : : : : : : : : : : : : :
QY 555 WTRGIVNGIDMMENPEVDVHLKSDGYTNFSLGTLDSGRCKEALQBELGLQVADVP 614
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Db 523 WTRGIVNGIDMMENPEVDVHLKSDGYTNFSLGTLDSGRCKEALQBELGLQVADVP 582
   : : : : : : : : : : : : : : : : : : : : : : : : : :
QY 615 LIGFIRLDGQKGVETIADAMPVIVSQDVQVLMGTRHDLSEMLRHFREHNDKVRGV 674
   : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 583 LIGFIRLDGQKGVETIADAMPVIVSQDVQVLMGTRHDLSEMLRHFREHNDKVRGV 642
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QY 675 GFSVRLAHRITAGADALIMPSRPECGLNQLYAMAYIVPVYHAGVGRDTVPDPDENH 734
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Db 643 GFSVRLAHRITAGADALIMPSRPECGLNQLYAMAYIVPVYHAGVGRDTVPDPDENH 702
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QY 735 SGLGMFEDBAEAKHLEALGHCLRTADYKESRGIOERGSGDPFMEHAALTYEDVLK 794
   : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 703 SGLGMFEDBAEAKHLEALGHCLRTADYKESRGIOERGSGDPFMEHAALTYEDVLK 762
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QY 795 AKYQW 799
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Db 763 AKYQW 767
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RESULT 8
US-09-606-304-8
: Sequence 8, Application US/09060304
: Patent No. 6483010
: GENERAL INFORMATION:
: APPLICANT: Kossmann, Jens
: Springer, Franziska
: Abel, Gernot
: TITLE OF INVENTION: DNA MOLECULES THAT CODE FOR ENZYMES
: INVOLVED IN STARCH SYNTHESIS IN VECTORS BACTERIA TRANSGENIC
: PLANT CELLS AND PLANTS CONTAINING SAID MOLECULES
: NUMBER OF SEQUENCES: 17
: CORRESPONDENCE ADDRESS:
```

ADDRESSEE: FISH & NEAVE
STREET: 1251 Avenue of the Americas
CITY: New York
STATE: New York
COUNTRY: USA
ZIP: 10020
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/606.304
FILING DATE: 28-Jun-2000
CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/836,567
FILING DATE: <Unknown>
APPLICATION NUMBER: DE P 44 41 408.0
FILING DATE: 10-NOV-1994
ATTORNEY/AGENT INFORMATION:
NAME: Haley Jr., James F.
REGISTRATION NUMBER: 27,794
REFERENCE/DOCKET NUMBER: Agrevo-4
TELECOMMUNICATION INFORMATION:
TELEPHONE: 212-596-9000
TELEFAX: 212-596-9090
INFORMATION FOR SEQ ID NO: 8:
SEQUENCE CHARACTERISTICS:
LENGTH: 767 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 8:
US-09-606-304-8

Query Match 50.3%; Score 2150.5; DB 4; Length 767;
Best Local Similarity 54.3%; Pred. No. 1.5e-188;
Matches 426; Conservative 104; Mismatches 188; Indels 67; Gaps 10;

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QY 34 HAGARLMPWPRTADGGVBARAGKQARVDDAASAROPRARGAATVAER 93
   : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 31 HGSSEQMRIRKRVATGENSGEASADESND-LQVTIEKSKYLAQODLLQOIAER 89
   : : : : : : : : : : : : : : : : : : : : : : : : : :
QY 94 DPKTLDRDA-----EGAPA-----PPARODAAAPPSMNGTPVNGENKSTGGGA 141
   : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 90 KYVSSIKSLNAKTYGGSGSLDVIDPDVDKYNVTVPSTATPTDVDKNT----- 144
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QY 142 TKDGLPAPARAPHPSTONRVVNGENKANA---SPTSLAEVVAAPSAATISIDKAP 198
   : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 145 -----PPAISODFVESKREIKRDLADERAPPLSRSSITA-SQISSTVSSKRT 191
   : : : : : : : : : : : : : : : : : : : : : : : : : :
QY 199 ESNVAEKPSPSSGNFVVASAPRLDID---SVEPELKKGAIVIEBAPPKLASPA 254
   : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 192 LN-VPPEPKSSQETLLDVNSRKSIVDPGKKIQSYMPSLRKSSASHVGEONENLEBSS 250
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QY 255 APAVEDLMDFKKTYIGFEEPEAKDDGMAVADDAAGSFEHONHDSGPLAGENVMNVVA 314
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Db 251 AEANET-----EDPVNI-----DEKPPPLAGTVMNIIIVA 282
   : : : : : : : : : : : : : : : : : : : : : : : : : :
QY 315 AECSFWCKTGGIGDVAAGALPKALARGRHVWVVPYGDYEBAYVGVAKTYKAAQOME 374
   : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 283 SECAPWSKTGGIGDVAAGALPKALARGRHVWVVPYGDYEBAYVGVAKTYKAAQOME 342
   : : : : : : : : : : : : : : : : : : : : : : : : : :
QY 375 VNYFPAIDGVDVFIIDAPLFRHROEDTYGSGROEIMKMLFCGAAYVPMHVCGGVP 434
   : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 343 VTYFPAIDGVDVFIIDSHMFRHIGNNITYGSKNVLDLCKMVLFCGAALVPMHVCGGVC 402
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QY 435 YGDGMLVFIANDMHTALLPVYLKAYYRDHGLMQYTRSINVININIAHQGRGPVDEPPEL 494
   : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 403 YGDGMLVFIANDMHTALLPVYLKAYYRDHGLMQYTRSINVININIAHQGRGPVDEPPEL 462
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QY 495 PEHYLEHFLYDPVGEHANYPAGIKMADQVNVVSPGYLMELKTYEGGWGLHDIIROND 554
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Db 463 PHVMDPFLYDVPGEHFNIPAAGLKTADRVVTVSHSGVWELKTSQGGMGHLOIINEND 522
Qy 555 WTRTRIVNGIDMMENPEVDVHLKSDGYTNFSLGTLDSCKROCKELQRELGQVRADVP 614
Db 553 WLDQGIIVGIDIKKENPELDVHLQSPGYNNYSIDLTLQTCRPOCKALQRELGQVRADVP 582
Qy 615 ILGFGRLDQGVKEIADAMPWIVSODVQLVMLGTGRHDSMLRHFREHHQVRYGV 674
Db 583 LIGFGRDPOKGVDLIAASAMMGQDVQLVMLGTGRDLEOMLRQFECQNDKIRGV 642
Qy 675 GFSVLAHRTAGADALLMPSRFEPGCLNQLYAMA YGVTPVVHAGVADTVPPDPFNH 734
Db 643 GFSVTSRTRITAGADILLMPSRFEPGCLNQLYAMKXGTPVVHAGVADTVQFPDPFNE 702
Qy 735 SGLGTFPRAEAHKLIALGHLCTYRDYKESWGLQERGSODPSWEHAKLYEDVLK 794
Db 703 SGLGTFPRAEASOLIHAGNCLTYREYKSMEGIQTRCMTODLSMDNAQNYEVLIA 762
Qy 795 AKYQW 799
Db 763 AKYQW 767

RESULT 9
US-09-388-743-6
; Sequence 6, Application US/09388743
; Patent No. 6423886
; GENERAL INFORMATION:
; APPLICANT: Singletary, George
; APPLICANT: Zhou, Ian
; TITLE OF INVENTION: No. 6423886: Starch Synthase Polynucleotides and Their
; FILE OF INVENTION: Use in the Production of New Starches
; FILE REFERENCE: 1144
; CURRENT APPLICATION NUMBER: US/09/388,743
; CURRENT FILING DATE: 1999-09-02
; NUMBER OF SEQ ID NOS: 28
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 6
; LENGTH: 690
; TYPE: PRT
; ORGANISM: Curcuma zedoaria
US-09-388-743-6

Query Match 48.2%; Score 2063; DB 4; Length 690;
Best Local Similarity 56.0%; Pred. No. 1.4e-180;
Matches 404; Conservative 80; Mismatches 166; Indels 72; Gaps 9;

Qy 109 PAPPAP-----RQDAARP-----PSMNGTPVNGENKSTGGGATKDSGL-----PAP 150
Db 10 PAPPAPGASCRLLHGGARPLGHSPLCWANPLCTSRFMAGLSEVKKGSKITLKHIDHTGS 69
Qy 151 ARAP-----HPSTONRVPVNGENKANVASPTISIAEVNAPDSATISIDKAPESVVP 203
Db 70 ARTMRFLNALYHGSADLVPIINHKGSSGAVGRSINID-IOEDSNQDVDIADDSYAQOTME 128
Qy 204 AEKPPSSGSNFVVSASAPRLDIDSDVEBELKKG-----AVIEEAPNPKALSPAPARA 257
Db 129 QSKVLEWQRMLQOIIEKR-NFSEETESYVKDLENIGIYAAYQTSNNQOEAPP----- 183
Qy 258 VOEDLMDPKKTYIGFEPEYEAODDGMAYVADDAAGSFHHQNHDSGLAGENNWNVVVVAEC 317
Db 184 -----EEG-----NLNSPPLAGPWNVNIILVAEC 208
Qy 318 SPWCKTGIGDVAGALPPLAKAKGRHVVVVPRYGDYEAYDVGVKTYKKAAGDMEVNY 377
Db 209 APWCKTGIGDVAGALPPLAKAKGRHVVVVPRYGVNPEPKIEIGLKKYKVDGDMELKY 268
Qy 378 FHAYIDVDVPIADAPLFRHROEDTYGSGROEIMKRMILFCKAAVEVPMHTVPCGVPYGD 437
Db 269 YHTYIDSDVDFVIFSPFRHIGNDYGGNRKVDILKRMVLPCKAAVEVPMHTVPCGSGFCYGD 328
Qy 438 GNLVFIANDMHTALLPVYLKAYYRDHGLMOYTRSIIMVHNIAHQGRGVVDEPFTLPEH 497
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Db 329 GNLVFIANDMHTSLPVYLKACFRDGLMTARGLVTHNIAHQGRGLDPSYVDLPHD 388
Qy 498 YLEHFRLYDVPGEHFNIPAAGLKXADQVYVVSFGYLMELKTVEGKGLHDIIRONDKT 557
Db 389 HIDSFRLLDPVGEHFNIPAAGLIADRVVTVSHSYAMELKTSSEGGMGHEIINECHWKF 448
Qy 558 RGIYVGINMMENPEVDVHLKSDGYTNFSLGTLDSCKROCKALQRELGQVRADVPILG 617
Db 449 HOIVGIDHSNPFDPDHLNDSGYTNFTLETLENGKQCKALQRELGQVRADVPILIA 508
Qy 618 FIGRLDQGVKEIADAMPWIVSODVQLVMLGTGRHDSMLRHFREHHQVRYGV 677
Db 509 FIGRLDQKGIIDLAEHNVLVGDLQIIMGTGRDLEOMLRQFECQNDKIRGV 568
Qy 678 VRLAHRITAGADALLMPSRFEPGCLNQLYAMA YGVTPVVHAGVADTVPPDPFNHSG 737
Db 569 VMAHRITAGADALLMPSRFEPGCLNQLYAMMYGTIPVVHAGVADTVQFPDPFNEHGL 628
Qy 738 GWTFRARAHKLIALGHLCTYRDYKESWGLQERGSODPSWEHAKLYEDVLKAKY 797
Db 629 GWTFRARAHRIVALGHCLTYRNYKESWGLQERGMQDLSWESAHEYEKVLVAKY 688
Qy 798 QW 799
Db 689 QW 690

RESULT 10
US-10-044-543-6
; Sequence 6, Application US/10044543
; Patent No. 6734341
; GENERAL INFORMATION:
; APPLICANT: Singletary, George
; APPLICANT: Zhou, Ian
; TITLE OF INVENTION: No. 6734341: Starch Synthase Polynucleotides
; FILE OF INVENTION: and Their Use in the Production of New Starches
; FILE REFERENCE: 1144D
; CURRENT APPLICATION NUMBER: US/10/044,543
; CURRENT FILING DATE: 2002-01-11
; PRIOR APPLICATION NUMBER: 09/388,743
; PRIOR FILING DATE: 1999-09-02
; NUMBER OF SEQ ID NOS: 28
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 6
; LENGTH: 690
; TYPE: PRT
; ORGANISM: Curcuma zedoaria
US-10-044-543-6

Query Match 48.2%; Score 2063; DB 4; Length 690;
Best Local Similarity 56.0%; Pred. No. 1.4e-180;
Matches 404; Conservative 80; Mismatches 166; Indels 72; Gaps 9;

Qy 109 PAPPAP-----RQDAARP-----PSMNGTPVNGENKSTGGGATKDSGL-----PAP 150
Db 10 PAPPAPGASCRLLHGGARPLGHSPLCWANPLCTSRFMAGLSEVKKGSKITLKHIDHTGS 69
Qy 151 ARAP-----HPSTONRVPVNGENKANVASPTISIAEVNAPDSATISIDKAPESVVP 203
Db 70 ARTMRFLNALYHGSADLVPIINHKGSSGAVGRSINID-IOEDSNQDVDIADDSYAQOTME 128
Qy 204 AEKPPSSGSNFVVSASAPRLDIDSDVEBELKKG-----AVIEEAPNPKALSPAPARA 257
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Qy 258 VOEDLMDPKKTYIGFEPEYEAODDGMAYVADDAAGSFHHQNHDSGLAGENNWNVVVVAEC 317
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Qy 318 SPWCKTGIGDVAGALPPLAKAKGRHVVVVPRYGDYEAYDVGVKTYKKAAGDMEVNY 377
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GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: June 9, 2005, 13:10:14 ; Search time 159 Seconds
(without alignments)
1926.316 Million cell updates/sec

Title: US-10-018-418a-4

Perfect score: 4276

Sequence: 1 MSSAVASAFSLALASAPG.....SWEHAATYEDVLKAKYQW 799

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 1710399 seqs, 38334425 residues

Total number of hits satisfying chosen parameters: 1710399

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

Published Applications AA:*
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Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	4075	95.3	799	9 US-09-952-677-6	Sequence 6, Appl1
2	4075	95.3	799	16 US-10-818-624-6	Sequence 6, Appl1
3	3826.5	89.5	802	16 US-10-416-439C-6	Sequence 6, Appl1
4	3821	89.4	813	16 US-10-416-439C-5	Sequence 5, Appl1
5	3663.5	85.7	770	16 US-10-416-439C-10	Sequence 10, Appl1
6	2811.5	65.8	732	16 US-10-109-048-26	Sequence 26, Appl1
7	2811.5	65.8	732	16 US-10-109-048-462	Sequence 462, App
8	2764.5	64.7	810	16 US-10-437-963-164696	Sequence 164696,
9	2702.5	63.2	670	16 US-10-336-753-51	Sequence 51, Appl1
10	2636.5	61.7	554	16 US-10-425-115-361865	Sequence 361865,
11	2606	60.9	582	16 US-10-416-439C-7	Sequence 7, Appl1

12	2516.5	58.9	641	14 US-10-272-291-8	Sequence 8, Appl1
13	2432	56.9	669	16 US-10-628-525-9	Sequence 9, Appl1
14	2380.5	55.7	694	15 US-10-389-566-797	Sequence 797, App
15	2365.5	55.3	694	15 US-10-389-566-1213	Sequence 1213, App
16	2332.5	54.5	698	16 US-10-425-115-334543	Sequence 334543,
17	2314.5	54.1	698	16 US-10-109-048-27	Sequence 27, Appl1
18	2314.5	54.1	698	16 US-10-109-048-677	Sequence 677, Appl1
19	2314.5	54.1	698	16 US-10-628-525-11	Sequence 11, Appl1
20	2314.5	54.1	804	15 US-10-336-753-49	Sequence 49, Appl1
21	2163	50.6	801	14 US-10-044-543-26	Sequence 26, Appl1
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23	2161.5	50.5	771	15 US-10-424-599-202586	Sequence 202586,
24	2150.5	50.3	767	14 US-10-284-668-8	Sequence 8, Appl1
25	2069.5	48.4	477	14 US-10-372-291-7	Sequence 7, Appl1
26	2063	48.2	690	14 US-10-044-543-6	Sequence 6, Appl1
27	2059	48.2	558	14 US-10-284-668-6	Sequence 6, Appl1
28	2033	47.5	379	16 US-10-109-048-479	Sequence 479, App
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31	1940	45.4	379	16 US-10-109-048-477	Sequence 477, App
32	1933	45.2	440	15 US-10-425-114-38552	Sequence 38552, A
33	1929	45.1	379	16 US-10-109-048-480	Sequence 480, App
34	1696	39.7	995	16 US-10-437-963-182628	Sequence 182628,
35	1551	36.3	492	16 US-10-109-048-32	Sequence 32, Appl1
36	1455.5	34.0	358	16 US-10-109-048-7	Sequence 7, Appl1
37	1374	32.1	341	15 US-10-425-114-58577	Sequence 58577, A
38	1374	32.1	341	16 US-10-425-115-221864	Sequence 221864,
39	1360.5	31.8	411	16 US-10-109-048-481	Sequence 481, App
40	1360	31.8	361	16 US-10-109-048-8	Sequence 8, Appl1
41	1347	31.5	458	16 US-10-109-048-33	Sequence 33, Appl1
42	1336.5	31.3	350	16 US-10-109-048-476	Sequence 476, App
43	1332.5	31.2	349	16 US-10-109-048-3	Sequence 3, Appl1
44	1330	31.1	348	16 US-10-109-048-475	Sequence 475, Appl1
45	1204	28.2	230	16 US-10-416-439C-8	Sequence 8, Appl1

ALIGNMENTS

RESULT 1
US-09-952-677-6
Sequence 6, Application US/09952677
Patent No. US20020138876A1

GENERAL INFORMATION:
APPLICANT: Block, Martina
Lottz, Horst
Luticke, Stephanie
Walter, Lennart
Froberg, Claus
Kossmann, Jens

TITLE OF INVENTION: NUCLEIC ACID MOLECULES ENCODING ENZYMES
FROM WHEAT WHICH ARE INVOLVED IN STARCH
SYNTHESIS

NUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESS:
ADDRESSEE: James F. Haley, Jr., c/o Fish & Neave
STREET: 1251 Avenue of the Americas
CITY: New York
STATE: New York
COUNTRY: United States of America
ZIP: 10020

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent Release #1.0, Version #1.30 (EPO)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/952,677
FILING DATE: 14-Sep-2001
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 09/196,390
FILING DATE: 19-NOV-2000
APPLICATION NUMBER: DE 196 21 588.9

FILING DATE: 29-MAY-1996
APPLICATION NUMBER: DE 196 36 917.7
FILING DATE: 11-SEP-1996
APPLICATION NUMBER: PCT/EP97/02793
FILING DATE: 28-MAY-1997
ATTORNEY/AGENT INFORMATION:
NAME: Haley, Jr., James F.
REGISTRATION NUMBER: 27,794
REFERENCE/DOCKET NUMBER: AGREVO-9
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 596-9000
TELEFAX: (212) 596-9090
INFORMATION FOR SEQ ID NO: 6:
SEQUENCE CHARACTERISTICS:
LENGTH: 799 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 6:
US-09-952-677-6

Query Match 95.3%; Score 4075; DB 9; Length 799;
Best Local Similarity 95.6%; Pred. No. 4.7e-294;
Matches 764; Conservative 7; Mismatches 28; Indels 0; Gaps 0;

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DB 61 AGKCDAGIDDAASVAPQPRALRGGAATKVAERRDPVTKLDRDAEGGAPAPPAQDAAR 120
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DB 121 PSMNGTIPVNGENKSTGGGATKDSGLPARAPHPSTONRVVNGENKANAASPTSLA 180
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DB 181 EVVAEDSAATISISDKAPESVPAEKPPSSGSNFVNASAPRLDSDVPELKKGAVI 240
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DB 241 VEEAPNPKALSPPAAPAVQEDIMDFKKYIGFEEPYEAKDGMVAVDAGSEHHQNDHG 300
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DB 361 GVRKYYKAGODMEVNYFAAYIDGVFIDAPLFRHROEDYGGSRQIMKRMILFCKA 420
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DB 421 AVEVPMHVPCGVPYDGNLVFIANDMHTALLPVYLKAYRDHGLMOYTRSIMVHNINAH 480
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RESULT 2

US-10-818-624-6
Sequence 6, Application US/10818624
Publication No. US20040204579A1
GENERAL INFORMATION:
APPLICANT: Block, Martina
Lortz, Horst
Luticke, Stephanie
Walter, Lennart
Froberg, Claus
Kossmann, Jens
TITLE OF INVENTION: NUCLEIC ACID MOLECULES ENCODING ENZYMES
FROM WHEAT WHICH ARE INVOLVED IN STARCH
SYNTHESIS
NUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESS:
ADDRESSEE: James F. Haley, Jr., c/o Fish & Neave
STREET: 1251 Avenue of the Americas
CITY: New York
STATE: New York
COUNTRY: United States of America
ZIP: 10020
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
OPERATING SYSTEM: IBM PC compatible
SOFTWARE: Patent Release #1.0, Version #1.30 (EPO)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/818,624
FILING DATE: 05-APR-2004
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/09/952,677
FILING DATE: 14-SEP-2001
APPLICATION NUMBER: 09/196,390
FILING DATE: 19-NOV-1998
APPLICATION NUMBER: DE 196 21 588.9
FILING DATE: 29-MAY-1996
APPLICATION NUMBER: DE 196 36 917.7
FILING DATE: 11-SEP-1996
APPLICATION NUMBER: PCT/EP97/02793
FILING DATE: 28-MAY-1997
ATTORNEY/AGENT INFORMATION:
NAME: Haley, Jr., James F.
REGISTRATION NUMBER: 27,794
REFERENCE/DOCKET NUMBER: AGREVO-9
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 596-9000
TELEFAX: (212) 596-9090
INFORMATION FOR SEQ ID NO: 6:
SEQUENCE CHARACTERISTICS:
LENGTH: 799 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 6:
US-10-818-624-6

Query Match 95.3%; Score 4075; DB 16; Length 799;
Best Local Similarity 95.6%; Pred. No. 4.7e-294;
Matches 764; Conservative 7; Mismatches 28; Indels 0; Gaps 0;

QY 1 MSSAVASAFILALASAPGRRRRARVAPPPHAGAGRLHMPMPORTADGVAARA 60
DB 1 MSSAVASAFILALASAPGRRRRARVAPPPHAGAGRLHMPMPORTADGVAARA 60

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RESULT 3
US-10-416-439C-6

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; Sequence 6, Application US/10416439C
; Publication No. US20040199942A1
; GENERAL INFORMATION:
; APPLICANT: Commonwealth Scientific and Industrial Research Organisation
; APPLICANT: Morell, Matthew Kennedy
; APPLICANT: Batey, Ian Leslie
; TITLE OF INVENTION: BARLEY WITH REDUCED SSII ACTIVITY AND STARCH CONTAINING PRODUCTS
; FILE REFERENCE: 0070/70440
; CURRENT APPLICATION NUMBER: US/10/416, 439C
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 6
; LENGTH: 802
; TYPE: PRT

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ORGANISM: Hordeum vulgare
US-10-416-439C-6

Query Match 89.5%; Score 3826.5; DB 16; Length 802;
Best Local Similarity 90.0%; Pred. No. 1,4e-275;
Matches 730; Conservative 17; Mismatches 43; Indels 21; Gaps 4;

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DB      652 GTGRHDLBSMLRFEREHNDKVRGWGFSVRLAHRITAGADALLMPSREPCGINOLYAM 711
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RESULT 4
US-10-416-439C-5

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; Sequence 5, Application US/10416439C
; Publication No. US20040199942A1
; GENERAL INFORMATION:
; APPLICANT: Commonwealth Scientific and Industrial Research Organisation
; APPLICANT: Morell, Matthew Kennedy
; APPLICANT: Batey, Ian Leslie
; APPLICANT: Topping, David

```

;; TITLE OF INVENTION: BARLEY WITH REDUCED SEII ACTIVITY AND STARCH CONTAINING PRODUCTS
;; TITLE OF INVENTION: REDUCED AMYLOPECTIN CONTENT
;; FILE REFERENCE: 0070/70440
;; CURRENT APPLICATION NUMBER: US/10/416,439C
;; CURRENT FILING DATE: 2003-12-05
;; NUMBER OF SEQ ID NOS: 14
;; SOFTWARE: PatentIn version 3.1
;; SEQ ID NO 5
;; LENGTH: 813
;; TYPE: PRT
;; ORGANISM: Hordeum vulgare
US-10-416-439C-5

Query Match 89.4%; Score 3821; DB 16; Length 813;
Best Local Similarity 88.8%; Pred. No. 3.8e-275;
Matches 730; Conservative 17; Mismatches 43; Indels 32; Gaps 4;

QY 1 MSSAVASASFLALASAPGR-SRRARVASAPPPHAGRLHWPMPPORTARDGVAAAR 59
DB 1 MSSAVASASFLALASAPGRSSRRARVAGASPTPAGRLQWRPSPLORTARDGVAAAR 60
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DB 112 RLPSNGTLINGENKPTGGGATKDSGLPTPARAHLISIQNRVPVNGENKHNVAAPPISI 171
QY 180 AENVAPDSATISISDKAPESVVPAREKP-----PSSGSNFV 217
DB 172 DVVASPGSAAANISINKNVPPSVVPAKTPPSSVFPACKAPSSVVPACKTLPSSGSNFVS 231
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DB 222 SASARLIDISDVEBELKKGADALIVEAPRPAKLSPPAPAVOEDIMDFKTYGFEPEVEA 291
QY 278 KODGVAVADDAAGSFHHQNHDSGPLAGENVMMVVVAAECSPWCCTGGIGDVAAGALPYAL 337
DB 222 KODGSAVADDAAGSFHHQNHDSGPLAGENVMMVVVAAECSPWCCTGGIGDVAAGALPYAL 351
QY 338 AKRGHRVWVVRDYDEBAYDVGVRYKTYKKAAGOMEVNYFHAAYIDGVDFVFTDAPLFRH 397
DB 352 AKRGHRVWVVRDYDEBAYDVGVRYKTYKKAAGOMEVNYFHAAYIDGVDFVFTDAPLFRH 411
QY 398 ROEDYIGGSRROEIMRMLIFCKAAVEVPWHVPCGVPGDGNLVFIANDMHTALLPYLYK 457
DB 412 ROEDYIGGSRROEIMRMLIFCKAAVEVPWHVPCGVPGDGNLVFIANDMHTALLPYLYK 471
QY 458 AYYRDHGLMOQYTRSIMVJHNIHAQGRGPVDEPFPTELPEHYLEHFRLYDPVGEHANFYA 517
DB 472 AYYRDHGLMOQYTRSIMVJHNIHAQGRGPVDEPFPTELPEHYLEHFRLYDPVGEHANFYA 531
QY 518 AGLKRAADQVVVYSPGYLWELKTVBEGKGLHDIIRQNDWKTRIGIVNGIDMENNPEVDYHL 577
DB 532 AGLKRAADQVVVYSPGYLWELKTVBEGKGLHDIIRQNDWKTRIGIVNGIDMENNPEVDYHL 591
QY 578 KSDGYTNFSIGTLDSGKQCKEALORELGOVRADVPLLGIFGRIDGQGVFIIDAMPW 637
DB 592 KSDGYTNFSIGTLDSGKQCKEALORELGOVRADVPLLGIFGRIDGQGVFIIDAMPW 651
QY 638 IYSQDVOLVMLGTGHHDLSEMLRHFEREHNDKYRGVGSVRLAHRITAGADALIMPSRF 697
DB 652 IYSQDVOLVMLGTGHHDLSEMLRHFEREHNDKYRGVGSVRLAHRITAGADALIMPSRF 711
QY 698 EPCGILNOLYAMA YGVTPVVAHVGVRDTPVPDPFNHSGLGTFPDRAEAKHLIEALGHCL 757
DB 712 EPCGILNOLYAMA YGVTPVVAHVGVRDTPVPDPFNHSGLGTFPDRAEAKHLIEALGHCL 771
QY 758 RYYRDKESWRLGLOERGSODFSWEHAAKLYEDVLLKAKYGM 799
DB 772 RYYRDKESWRLGLOERGSODFSWEHAAKLYEDVLLKAKYGM 813

RESULT 5
US-10-416-439C-10
; Sequence 10; Application US/10416439C
; Publication No. US20040199942A1
; GENERAL INFORMATION:
; APPLICANT: Commonwealth Scientific and Industrial Research Organisation
; APPLICANT: Morell, Matthew Kennedy
; APPLICANT: Batey, Ian Leslie
; APPLICANT: Topping, David

;; TITLE OF INVENTION: BARLEY WITH REDUCED SEII ACTIVITY AND STARCH CONTAINING PRODUCTS
;; TITLE OF INVENTION: REDUCED AMYLOPECTIN CONTENT
;; FILE REFERENCE: 0070/70440
;; CURRENT APPLICATION NUMBER: US/10/416,439C
;; CURRENT FILING DATE: 2003-12-05
;; NUMBER OF SEQ ID NOS: 14
;; SOFTWARE: PatentIn version 3.1
;; SEQ ID NO 10
;; LENGTH: 770
;; TYPE: PRT
;; ORGANISM: Hordeum vulgare
US-10-416-439C-10

Query Match 85.7%; Score 3663.5; DB 16; Length 770;
Best Local Similarity 89.1%; Pred. No. 1.8e-263;
Matches 693; Conservative 18; Mismatches 36; Indels 31; Gaps 3;

QY 44 PMPPORTARDGVAAARAAGKDAVDDDAASAROPRARAGAAATKVAERDPVTLDDA 103
DB 2 PMPPORTARDGVAAARAAG-----IDDAAGROPRARRYGAATKVA--DPVKTLDDA 52
QY 104 AEGGAPAPARODAAARPPSMNGTPVNGENKSTGGGATKDSGLPAPARAPHPSTONRVP 163
DB 53 AEGGSPSPARODAAARLPSNGTLINGENKPTGGGATKDSGLPTPARAHLISIQNRVP 112
QY 164 VNGENKANVASPPISIAENVAPDSATISISDKAPESVVPAREKP----- 208
DB 113 VNGENKHNVAAPPISIVDVASPGSAAANISINKNVPPSVVPAKTPPSSVFPACKAPSSV 172
QY 209 -----PSSGSNFVSASARLIDISDVEBELKKGAVIEEAPRPAKLSPPAPAVOED 261
DB 173 VPACKTLPSSGSNFVSASARLIDISDVEBELKKGADALIVEAPRPAKLSPPAPAVOED 232
QY 262 LMDFKTYGFEPEVEAKODGVAVADDAAGSFHHQNHDSGPLAGENVMMVVVAAECSPWC 321
DB 223 LMDFKTYGFEPEVEAKODGSAVADDAAGSFHHQNHDSGPLAGENVMMVVVAAECSPWC 292
QY 322 KTGGIGDVAAGALPKALAKGHRVWVVRDYDEBAYDVGVRYKTYKKAAGOMEVNYFHAAY 381
DB 293 KTGGIGDVAAGALPKALAKGHRVWVVRDYDEBAYDVGVRYKTYKKAAGOMEVNYFHAAY 352
QY 382 IDGVDFVFTDAPLFRHROEDYIGGSRROEIMRMLIFCKAAVEVPWHVPCGVPGDGNLV 441
DB 412 IDGVDFVFTDAPLFRHROEDYIGGSRROEIMRMLIFCKAAVEVPWHVPCGVPGDGNLV 471
QY 442 FIANDMHTALLPYLYKAYYRDHGLMOQYTRSIMVJHNIHAQGRGPVDEPFPTELPEHYLEH 501
DB 472 FIANDMHTALLPYLYKAYYRDHGLMOQYTRSIMVJHNIHAQGRGPVDEPFPTELPEHYLEH 531
QY 502 FRLYDPVGEHANFYAAGLKVADQVVVYSPGYLWELKTVBEGKGLHDIIRQNDWKTRIGIV 561
DB 532 FRLYDPVGEHANFYAAGLKVADQVVVYSPGYLWELKTVBEGKGLHDIIRQNDWKTRIGIV 591
QY 562 NGIDMENNPEVDYHLKSDGYTNFSIGTLDSGKQCKEALORELGOVRADVPLLGIFGR 621
DB 592 NGIDMENNPEVDYHLKSDGYTNFSIGTLDSGKQCKEALORELGOVRADVPLLGIFGR 651
QY 622 LDGQGVFIIDAMPWITSQDVOLVMLGTGHHDLSEMLRHFEREHNDKYRGVGSVRLA 681
DB 652 LDGQGVFIIDAMPWITSQDVOLVMLGTGHHDLSEMLRHFEREHNDKYRGVGSVRLA 711
QY 682 HRTTAGADALIMPSRFPCGILNOLYAMA YGVTPVVAHVGVRDTPVPDPFNHSGLGT 741
DB 741 HRTTAGADALIMPSRFPCGILNOLYAMA YGVTPVVAHVGVRDTPVPDPFNHSGLGT 771

Db 653 HRTAGADALMPSRFPBGCLNQLYAMAAYGTRPVVHVAAGLBDTVPFPDFPNHSGLGATF 712
Qy 742 DRAEHKLIEMGLHCLRTYRDYKESWRGLOERKSGODSMWEALTYEDVLKAKYQW 799
Db 713 DRAEHKLIEMGLHCLRTYRDYKESWRGLOERKSGODSMWEALTYEDVLKAKYQW 770

RESULT 6
US-10-109-048-26
; Sequence 26, Application US/10109048
; Publication No. US20040107461A1
; GENERAL INFORMATION:
; APPLICANT: COMMURI, PADMA
; APPLICANT: KEELING, PETER L.
; APPLICANT: RAMIREZ, NONA
; APPLICANT: MCKEAN, ANGELA
; APPLICANT: GUAN, ZHONG
; APPLICANT: GUAN, ZHONG
; TITLE OF INVENTION: GLUCAN CHAIN LENGTH DOMAINS
; FILE REFERENCE: 2461-76
; CURRENT APPLICATION NUMBER: US/10/109,048
; CURRENT FILING DATE: 2003-03-04
; PRIOR APPLICATION NUMBER: 60/279,720
; PRIOR FILING DATE: 2001-03-30
; NUMBER OF SEQ ID NOS: 1154
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO: 26
; LENGTH: 732
; TYPE: PRT
; ORGANISM: Unknown Organism
; FEATURE:
; OTHER INFORMATION: Description of Unknown Organism: Still amino acid sequence
US-10-048-26

Query Match 65.8%; Score 2811.5; DB 16; Length 732;
Best Local Similarity 68.2%; Pred. No. 4e-200;
Matches 550; Conservative 58; Mismatches 116; Indels 83; Gaps 10;

Qy 1 MSSAVASAS---FLATASAPGSRRRARVSAAPPAGAGR--LHMPWPORTRADCG 55
Db 1 MSSAVSSSSSTFFLATASASPG--GRRRARVGSPPHFGASLFAFWAPSPPRAPRDA 59
Qy 56 V--AARAAKKDARVDDDAASAROPRARCGAATVVAERRPVKTLDADAEGCAPAPPA 113
Db 60 LVRAEAEGKXDAPEERSGDAARLPARRNA---VSKRBDPLQ----- 99
Qy 114 PRODARPPSMNGTPVNGENKSTGGGATKDSGLPAPARAPHPSTQNRVPVNGENKANYA 173
Db 100 -----PVGRYGSATGN-----TARTGAASQNALADVEIKSIYA 134
Qy 174 SPTSIAEVAPDSAAATISIDKAPESVVAPEKPPSSGSGNFVVASAPRLDIDSVEPE 233
Db 135 APTTSIVFPAAGYRMILPSGDIAPETVLPAPKPLHES-----PAVDGSGN---- 180
Qy 234 LKGAIVYEAAPNPALSPPA--PAVQEDLWDFKTYTGEFEPVEAKDGMVADDAAGSFE 292
Db 181 -----GIAPTVEPLVQEARWDFKXYTGDFDEDEAKDSDRVGADAGSFE 225
Qy 293 HHONHDSGLAGENVNNTVVAECSPMCKTGGLGDVAGALPKALAKRGHRVMVVVPRYG 352
Db 226 HYGNDSGPLAGENVNNTVVAECSPMCKTGGLGDVAGALPKALAKRGHRVMVVVPRYG 285
Qy 353 DYEAYDVGVKRYKAAQODMEVNYFAHYIDGVDFVFDAPLFRHROBDIYGSROEIMK 412
Db 286 DYVEAFDMGIRKRYKAAQODLEVNYFAHIDGVDFVFDAPLFRHROBDIYGSROEIMK 345
Qy 413 RMILFCKAAVVPWMPVPCGGVPYGGNVLFTLNDHTALLPYLLKAYYRDHGLMYTSTI 472
Db 346 RMILFCKAAVVPWMPVPCGGVPYGGNVLFTLNDHTALLPYLLKAYYRDHGLMYTSTI 405
Qy 473 MVIHIAAGRGVPEFPELPEHYLEHFRLYDPEVGEHANYFAAGLKMADQVVVSPG 532
Db 406 LVINHIAAGRGVPEFPELPEHYLEHFRLYDPEVGEHANYFAAGLKMADQVVVSPG 465

Qy 533 YLMELKTVEGGMGLHDIIRONDWKTGRGVNGIDNMENNPEVDYHLKSDGYNFSLGTLDS 592
Db 466 YLMELKTVEGGMGLHDIIRSDMKNGITVNGIDHOENMPKVVDYHLKSDGYNFSLGTLDA 525
Qy 593 GKROCKALQRELEGLQVADYVPLGFLGRDQOKVEIADAMPWISQDVLYMLGTGR 652
Db 526 GKROCKALQRELEGLQVADYVPLGFLGRDQOKVDIIGDAMPWISQDVLYMLGTGR 585
Qy 653 HDLSMLHFEREHHDKTRGVGVSRLAHRITAGADALLMPSRFPBGCLNQLYAMAAYGT 712
Db 586 ADLERMLQHLERHPNKRGVGVSFVMAHRTAGADVLMPSRFPBGCLNQLYAMAAYGT 645
Qy 713 VPVVAAGVGDVTPPDPFPFHSGLGWTFDEAABHKLIEALGHCLRTYRDYKESWRGLOE 772
Db 646 VPVVAAGVGDVTPPDPFPFDGAGWTFDEAANKLIEALRHCLDITYRKTESWKSLOA 705
Qy 773 RGMQDPSMEHAALKYEDVLKAKYQW 799
Db 706 RGMQDLSMDHAAELYEDVLKAKYQW 732

RESULT 7
US-10-109-048-462
; Sequence 462, Application US/10109048
; Publication No. US20040107461A1
; GENERAL INFORMATION:
; APPLICANT: COMMURI, PADMA
; APPLICANT: KEELING, PETER L.
; APPLICANT: RAMIREZ, NONA
; APPLICANT: MCKEAN, ANGELA
; APPLICANT: GUAN, ZHONG
; APPLICANT: GUAN, ZHONG
; TITLE OF INVENTION: GLUCAN CHAIN LENGTH DOMAINS
; FILE REFERENCE: 2461-76
; CURRENT APPLICATION NUMBER: US/10/109,048
; CURRENT FILING DATE: 2003-03-04
; PRIOR APPLICATION NUMBER: 60/279,720
; PRIOR FILING DATE: 2001-03-30
; NUMBER OF SEQ ID NOS: 1154
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO: 462
; LENGTH: 732
; TYPE: PRT
; ORGANISM: Zea mays
US-10-109-048-462

Query Match 65.8%; Score 2811.5; DB 16; Length 732;
Best Local Similarity 68.2%; Pred. No. 4e-200;
Matches 550; Conservative 58; Mismatches 116; Indels 83; Gaps 10;

Qy 1 MSSAVASAS---FLATASAPGSRRRARVSAAPPAGAGR--LHMPWPORTRADCG 55
Db 1 MSSAVSSSSSTFFLATASASPG--GRRRARVGSPPHFGASLFAFWAPSPPRAPRDA 59
Qy 56 V--AARAAKKDARVDDDAASAROPRARCGAATVVAERRPVKTLDADAEGCAPAPPA 113
Db 60 LVRAEAEGKXDAPEERSGDAARLPARRNA---VSKRBDPLQ----- 99
Qy 114 PRODARPPSMNGTPVNGENKSTGGGATKDSGLPAPARAPHPSTQNRVPVNGENKANYA 173
Db 100 -----PVGRYGSATGN-----TARTGAASQNALADVEIKSIYA 134
Qy 174 SPTSIAEVAPDSAAATISIDKAPESVVAPEKPPSSGSGNFVVASAPRLDIDSVEPE 233
Db 135 APTTSIVFPAAGYRMILPSGDIAPETVLPAPKPLHES-----PAVDGSGN---- 180
Qy 234 LKGAIVYEAAPNPALSPPA--PAVQEDLWDFKTYTGEFEPVEAKDGMVADDAAGSFE 292
Db 181 -----GIAPTVEPLVQEARWDFKXYTGDFDEDEAKDSDRVGADAGSFE 225
Qy 293 HHONHDSGLAGENVNNTVVAECSPMCKTGGLGDVAGALPKALAKRGHRVMVVVPRYG 352
Db 226 HYGNDSGPLAGENVNNTVVAECSPMCKTGGLGDVAGALPKALAKRGHRVMVVVPRYG 285

Db 226 HYGDNDSCPLAGENNANVIVAAECSPWCKTGIGLVGALPKALARRGHRVWVVRXYG 285
Qy 353 DYEBAADVGRKYKKAAGDMEVNYPHAYIDGVDFVFIAPLFRHROEDIYGGSRQEIWK 412
Db 286 DYEADDMGIRKTYKKAAGDLEVNYPHATIDGVDFVFIAPLFRHROEDIYGGSRQEIWK 345
Qy 413 RMILFCKAAVEVPMHVPCCGVPYGDNLVFIANDMTALLPVYLKAYYRDHGLMQYTRSI 472
Db 346 RMILFCKAAVEVPMHVPCCGVCYGDNLVFIANDMTALLPVYLKAYYRDHGLMQYTRSV 405
Qy 473 MYIHNAHQGRGVDFEPPTELEPHYLEHRLYDPRVGGHANYFAAGLKMAQDVVVVSG 532
Db 406 LVIHNAHQGRGVDFEPPTELEPHYLEHRLYDPRVGGHANYFAAGLKMAQDVVVVSG 465
Qy 533 YIMELKTBGGWGLHDIIRONDMKTRGIYNGIDNMEVNDVHLKSDQYTNPSIGTLLS 592
Db 466 YIMELKTBGGWGLHDIIRSNBMKINGIYNGIDHQBENPVDVHLSDGTYNISSETLTA 525
Qy 593 GKROCKEALORELQVRADVPLLGFIGRLDGQKVEIADAMPWIVSODVOLVMLGTGR 652
Db 526 GKROCKEALORELQVRELDVPLLGFIGRLDGQKVDIIGDAMPWIAQDVOLVMLGTGR 585
Qy 653 HOLESMRHPEREHNDKVRGWGFSVRLAHRITAGADALLMPRFPCCGLNOLYMAAYGT 712
Db 586 ADLERMLQHLEHHPKVRGWGFSVPMARITAGADVLMPSRFPCCGLNOLYMAAYGT 645
Qy 713 VDVVHAVGVDRTPVPEFDPFNHSGLGTDRBAEHLIETALGHCTRTYRDKESWMLQDE 772
Db 646 VDVVHAVGVDRTPVAFDFPDGDLGMLTDRBAEHLIETALGHCTRTYRDKESWMLQDE 705
Qy 773 RGMSDPFSWEHAKLYEDVILKAKYQW 799
Db 706 RGMSDPFSWEHAKLYEDVILKAKYQW 732

RESULT 8

US-10-437-963-164696
; Sequence 164696, Application US/10437963
; Publication No. US20040123343A1
; GENERAL INFORMATION:
; APPLICANT: La Rosa, Thomas J.
; APPLICANT: Kovalic, David K.
; APPLICANT: Zhou, Yihua
; APPLICANT: Cao, Yongwei
; APPLICANT: Wu, Wei
; APPLICANT: Boukharov, Andrey A.
; APPLICANT: Barbazuk, Brad
; TITLE OF INVENTION: Rice Nucleic Acid Molecules and Other Molecules Associated With
; TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
; FILE REFERENCE: 38-21(53221)B
; CURRENT APPLICATION NUMBER: US/10/437,963
; CURRENT FILING DATE: 2003-05-14
; NUMBER OF SEQ ID NOS: 204966
; SEQ ID NO 164696
; LENGTH: 810
; TYPE: PRT
; ORGANISM: Oryza sativa
; FEATURE:
; OTHER INFORMATION: Clone ID: PAT_MRT4530_63571C.1.pep
; US-10-437-963-164696

Query Match 64.7%; Score 2764.5; DB 16; Length 810;
Best Local Similarity 66.4%; Pred. No. 1,4e-196;
Matches 55; Conservative 75; Mismatches 143; Indels 63; Gaps 20;
Qy 1 MSSA-VASASFL-ALASAPGSRRRAR---VSAPP-----HAGAGLHMPMP-POR 49
Db 1 MSSAVASSTTTLVALASASASRGPRRGVGAAPALLYDGRAGRLLRAPPPRP 60
Qy 50 TARDGVAAARA-AGKKDARY-----DD- -AASAPOPRARRGGAATYVAERRDPVK 97
Db 61 RRRDAGVVRADDGENEAAVERAGEDDDEEEFSSGAWQPPSRSGVG-KYLKRRGTVP 119

Qy 98 TLDR-----DAE- -GAPAP- -PAPRODAPRPPSNNGTPVNGENKSTGGGATKDSGLPAP 150
Db 120 PYGIRGSGGDAARVGAAPAPAPOTDAA--SSKRGALLSGDDDT----- 163
Qy 151 ARAPHPSTONRVVNGENKANYASPTSTIAEVVAPDSAAATLSISDK-APESVVP-AEKP- 207
Db 164 -----PASRNGSVTVGADPAPATPPVITTKLPADSPVILPSVKPKPGEFVYIPATAPA 218
Qy 208 PSSGSGNFVVSASARLIDSDVEPELKKGAIVYEAPNPKLSPAPAPAVEDLMDPFK 267
Db 219 PPPSSNPPSSAPLKPDPDSEFAE--DSAAVVSAPPKKTRSSPIIPAVEEETWDFK 275
Qy 268 YIGFEEPEYEA- -DDGNAVADAGSFEHONHNSGPLAGENNANVIVAAECSPWCKT 323
Db 276 YFDLNEPDAHEGDDDDDMA--DSDSDEIIDDODDSGLAGENNANVIVAAECSPWCKT 334
Qy 324 GGLGADVAGALPKALARKGHRVWVVRXYGDEBAADVGRKYKKAAGDMEVNYPHAYID 383
Db 335 GGLGADVAGALPKALARRGHRVWVVRXYGDAYEADGVIRKYYKKAAGDLEVKYFHAVID 394
Qy 384 GVDVFIIDAPLFRHROEDIYGGSRQEIWKRMILFCKAAVEVPMHVPCCGVPYGDNLVFI 443
Db 395 GVDVFIIDAPLFRHROEDIYGGSRQEIWKRMILFCKAAVEVPMHVPCCGVPYGDNLVFI 454
Qy 444 ANDMTALLPVYLKAYYRDHGLMQYTRSIMVTHNAHQGRGVDFEPPTELEPHYLEHPR 503
Db 455 ANDMTALLPVYLKAYYRDHGLMQYTRSVLVHNAHQGRGVDFEPPTELEPHYLDHNR 514
Qy 504 LYDPVGEHANYFAAGLKMAQDVVVVSPGYIMELKTBGGWGLHDIIRONDMKTRGIYNG 563
Db 515 LYDPVGEHANYFAAGLKMAQDVVVVSPGYIMELKTBGGWGLHDIIRONDMKTRGIYNG 574
Qy 564 IDNMEVNDVHLKSDGTYNISSETLDSGKROCKEALORELQVRELDVPLLGFIGRLD 623
Db 575 IDNMEVNDVHLKSDGTYNISSETLDSGKROCKEALORELQVRELDVPLLGFIGRLD 634
Qy 624 GOKGVEIITADAMPWIVSODVOLVMLGTGRHDESMRPEREHHNDKVRGWGFSVRLAHR 683
Db 635 GOKGVEIITADAMPWIAQDVOLVILGSGRRDLEVNLORFEAQNHSKVRGWGFSVRLAHR 694
Qy 684 ITAGADALLMPRFPCCGLNOLYMAAYGTPVVAHVGVDRTPVPEFDPFNHSGLGTDR 743
Db 695 ITAGADVLMPSRFPCCGLNOLYMAAYGTPVVAHVGVDRTPVPEFDPFNHSGLGTDR 754
Qy 744 ABAHKLIEALGHCTRTYRDKESWMLQDESGSDPFSWEHAKLYEDVILKAKYQW 799
Db 755 ABAHKLIEALGHCTRTYRDKESWMLQDESGSDPFSWEHAKLYEDVILKAKYQW 810

RESULT 9

US-10-336-753-51
; Sequence 51, Application US/10336753
; Publication No. US20030226176A1
; GENERAL INFORMATION:
; APPLICANT: Guan, Hanning
; APPLICANT: Keeling, Peter L.
; TITLE OF INVENTION: PLANT LIKE STARCHES AND THE METHOD OF MAKING THEM IN
; TITLE OF INVENTION: HOSTS
; FILE REFERENCE: 2461-52
; CURRENT APPLICATION NUMBER: US/10/336,753
; CURRENT FILING DATE: 2003-01-06
; PRIOR APPLICATION NUMBER: US/09/402,254
; PRIOR FILING DATE: 1998-10-01
; PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: PCT/US98/06660
; PRIOR FILING DATE: EARLIER FILING DATE: 1998-04-03
; PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 60/042,939
; NUMBER OF SEQ ID NOS: 77
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 51
; LENGTH: 670
; TYPE: PRT

ORGANISM: Zea mays
US-10-336-753-51

Query Match 63.2%; Score 2702.5; DB 15; Length 670;
Best Local Similarity 69.6%; Pred. No. 4.6e-192;
Matches 518; Conservative 54; Mismatches 97; Indels 75; Gaps 6;

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57 AARAGKDAVDDDAASAROPRARGAATKVAERRPVKTLDRAAEGGAPAPAPARQ 116
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 1 AEAENGKDAPEPESGDAARLPARARN-----VSKRRDPLQ----- 37

Qy 117 DAAPPSNAGTPVNGENKSTGGGATKDSGLPAPARAPHPSTONKVPVNGENKANVASPP 176
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 38 -----PVGRYSATGN-----TARTGAACQNALADVEIKSVAPR 75

Qy 177 TSIAEVAAPDAATISISDKAPESVPAEKPPSSGSNFVVASAPRLDIDSVEPELKK 236
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 76 TSIVKFPAPGYRMLPSSGDIAPETVLPAKPLHES-----PAVDGDSN----- 118

Qy 237 GAVIVEEAPNKAISPAA-PAVOEDLMDFKKXIGFEEBPVEAKDGMVADAGSFEHHQ 295
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 119 -----GLAPTVPEPLVOEATWDFKKYIGFDEPDEAKDSDRVGADAGSFEHYG 166

Qy 296 NHDGPIAGENVNVVVAACSPMCKTGGLGVAGALPKALAKGHRVMVVPYRGDYE 355
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 167 DNDGPIAGENVNVVVAACSPMCKTGGLGVAGALPKALAKGHRVMVVPYRGDYV 226

Qy 356 EAYVGVARKYKAAQDMENVYFHAVIDGVDFIDAPLFRHROBDIYGSROEIMKMI 415
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 227 EAFPMGIRKYYKAGODLEVNYFHAVIDGVDFIDAPLFRHROBDIYGSROEIMKMI 286

Qy 416 LFCGAAVEPMHVPCGVPYGDGNLVFIANDMHTALLPVYLKAYYRDHGLMOTRSIMVI 475
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 287 LFCGAAVEPMHVPCGVPYGDGNLVFIANDMHTALLPVYLKAYYRDHGLMOTRSIVVI 346

Qy 476 HNIAHOGKRPVDEFPETLEPHYLEHFLYDPVGEHANYPAAGLKMAADQVNVVSPGYLM 535
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 347 HNIAHOGKRPVDEFPETLEPHYLEHFLYDPVGEHANYPAAGLKMAADQVNVVSPGYLM 406

Qy 536 ELKTVGEGWGLHDIIRONDWTKTRGIVNGIDNMENPENVVHLKSDGYTFSLGTLDGSKR 595
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 407 ELKTVGEGWGLHDIIRONDWTKTRGIVNGIDNMENPENVVHLKSDGYTFSLGTLDGSKR 466

Qy 596 QCKALQRELGLQVRADVPILGFTGRLDGQKVEIADAMPWIVSODVOLVMLGTGRDL 655
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 467 QCKALQRELGLQVRADVPILGFTGRLDGQKVEIADAMPWIVSODVOLVMLGTGRDL 526

Qy 656 ESMRHFREHHDKYRGWVGSVRLAHRITAGADALLMPSPFCGLNQLYAMA YGTVPV 715
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 527 ERMLOHLERHPNKVRGWGFSVPMAHRITAGADVLMPSRFBPCGLNQLYAMA YGTVPV 586

Qy 716 VHAAGVARDIVPPDPFNHSLGWTFDRAEAHKLIALGHCILRTYRDYKESWRGLQERGM 775
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 587 VHAAGVARDIVAPDFPDGAGLWTFDRAEANKLIEALRHCLDTRYKKGESWKSILQARGM 646

Qy 776 SODFSWEHAALYEDVLLKAKYOW 799
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 647 SODLSWDAALYEDVLLKAKYOW 670
```

RESULT 10
US-10-425-115-361865

; Sequence 361865, Application US/10425115
; Publication No. US20040214272A1
; GENERAL INFORMATION:
; APPLICANT: La Rosa, Thomas J.
; APPLICANT: Kovalic, David K.
; APPLICANT: Zhou, Yihua
; APPLICANT: Cao, Yongwei
; TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
; FILE REFERENCE: 38-21(53222)B
; CURRENT APPLICATION NUMBER: US/10/425,115

CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 369326
SEQ ID NO 361865
LENGTH: 554
TYPE: PRT
ORGANISM: Zea mays
FEATURE:
NAME/KEY: unsure
LOCATION: (1)-(554)
OTHER INFORMATION: unsure at all Xaa locations
FEATURE:
OTHER INFORMATION: Clone ID: M74577_93198C.1.pcp
US-10-425-115-361865

Query Match 61.7%; Score 2636.5; DB 16; Length 554;
Best Local Similarity 86.6%; Pred. No. 2.9e-187;
Matches 484; Conservative 25; Mismatches 37; Indels 13; Gaps 1;

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241 VEEAPNKAISPAPPAVOEDLMDFKKXIGFEEBPVEAKDGMVADAGSFEHHQNDGSG 300
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 9 VEEAPNKAISPAPPAVOEDLMDFKKXIGFEEBPVEAKDGMVADAGSFEHHQNDGSG 68

Qy 301 PLAGENVNVVVAACSPMCKTGGLGVAGALPKALAKGHRVMVVPYRGDYEAADV 360
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 69 PLAGENVNVVVAACSPMCKTGGLGVAGALPKALAKGHRVMVVPYRGDYEAADV 128

Qy 361 GVRKTYAAGQDMENVYFHAVIDGVDFIDAPLFRHROBDIYGSROEIMKMI LPCA 420
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 129 GVRKTYAAGQDMENVYFHAVIDGVDFIDAPLFRHROBDIYGSROEIMKMI LPCA 188

Qy 421 AVEVPMHVPCGVPYGDGNLVFIANDMHTALLPVYLKAYYRDHGLMOTRSIMVIHNTAH 480
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 189 AVEVPMHVPCGVPYGDGNLVFIANDMHTALLPVYLKAYYRDHGLMOTRSIVVIHNTAH 248

Qy 481 QGRGVPDEFPETLEPHYLEHFLYDPVGEHANYPAAGLKMAADQVNVVSPGYLMELKTV 540
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 249 QGRGVPDEFPETLEPHYLEHFLYDPVGEHANYPAAGLKMAADQVNVVSPGYLMELKTV 295

Qy 541 EGGWGLHDIIRONDWTKTRGIVNGIDNMENPENVVHLKSDGYTFSLGTLDGSKRQCKEA 600
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 296 EGGWGLHDIIRONDWTKTRGIVNGIDNMENPENVVHLKSDGYTFSLGTLDGSKRQCKEA 355

Qy 601 LQRELGLQVRADVPILGFTGRLDGQKVEIADAMPWIVSODVOLVMLGTGRDLLESMLR 660
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 356 LQRELGLQVRADVPILGFTGRLDGQKVEIADAMPWIVSODVOLVMLGTGRDLLESMLR 415

Qy 661 HFEREHHDKYRGWVGSVRLAHRITAGADALLMPSPFCGLNQLYAMA YGTVPVHAAGV 720
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 416 HFEREHHDKYRGWVGSVRLAHRITAGADVLMPSRFBPCGLNQLYAMA YGTVPVHAAGV 475

Qy 721 GVRDTPPDPFNHSLGWTFDRAEAHKLIALGHCILRTYRDYKESWRGLQERGM SODFS 780
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 476 GLRDTVAPPPDFPDGAGLWTFDRAEANKLIEALRHCLDTRYKKGESWKSILQARGM SODLS 535

Qy 781 MEHAALYEDVLLKAKYOW 799
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 536 WDHAALYEDVLLKAKYOW 554
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RESULT 11
US-10-416-439C-7

; Sequence 7, Application US/10416439C
; Publication No. US20040199942A1
; GENERAL INFORMATION:
; APPLICANT: Commonwealth Scientific and Industrial Research Organisation
; APPLICANT: Morell, Matthew Kennedy
; APPLICANT: Batey, Ian Leslie
; APPLICANT: Topping, David
; TITLE OF INVENTION: BARLEY WITH REDUCED SSII ACTIVITY AND STARCH CONTAINING PRODUCTS
; FILE REFERENCE: 0070/70440
; CURRENT APPLICATION NUMBER: US/10/416,439C
; CURRENT FILING DATE: 2003-12-05

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; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 7
; LENGTH: 582
; TYPE: PRF
; ORGANISM: Hordeum vulgare
US-10-416-439C-7

Query Match      60.9%; Score 2606; DB 16; Length 582;
Best Local Similarity 85.8%; Pred. No. 5.7e-185;
Matches 507; Conservative 11; Mismatches 41; Indels 32; Gaps 4;

QY 1 MSSAVASASFLALASAPGR-SRRARVSAPEPHAGAGRLHMPMPORPTARDGVAAAR 59
D 1 MSSAVASAPAFLLALASAPGRSSRRARVGSPTFAGAGRLQWRPSPLOQTARDGVAAR 60
QY 60 AAGKAKARVDDDAASAQPARRGGATTKAERDPVKTLDRAAEGGAPAPPRDAA 119
D 61 AAG-----IDDAAPGRQPARRYGAATKYA---DPYKTLDRDAEAGGSPSPPAPRODAA 111
QY 120 RPPSMNGTPVNGENKSTGGGATKDSGLPAPARAPHSQNRVNVNGENKANYASPTST 179
D 112 RLPSKNGTLNGENKPTGGGATKDSGLPTPARAPHLISQNRVNVNGENKHKVYASPTST 171
QY 180 AEVVPDAAATISIDKAPESVPAEKRP-----PSSGSNFV 217
D 172 VDVAAPSAANISISNKVPSVPAKKTTPSSVPAKAPSSVPAKKTLPSSGSNFVS 231
QY 218 SASAPRLDIDSVEPELKGAVIYEAPNPKALSPPAPAVQEDLMDPKYIGEEVEEA 277
D 232 SASAPRLDIDSVEPELKGAVIYEAPNPKALSPPAPAVQEDLMDPKYIGEEVEEA 291
QY 278 KDDGMAVADAGSEFHHQNDSGPLAGENVNVVVAECSPMCKTGGLDVGALPKAL 337
D 292 KDDGSAVADAGSEFHHQNDSGPLAGENVNVVVAECSPMCKTGGLDVGALPKAL 351
QY 338 AKRGHRVWVVRPRYDYEAADVGVRRYRYAAGDMEVNFHAYIDGVDFIDAPLFRH 397
D 352 AKGHRVWVVRPRYDYEAADVGVRRYRYAAGDMEVNFHAYIDGVDFIDAPLFRH 411
QY 398 ROEDYIGSGROEIMKRMILFEKAAVEPMVPCGVPGVGDGNLVFIANDMHTALLPYLTK 457
D 412 ROEDYIGSGROEIMKRMILFEKAAVEPMVPCGVPGVGDGNLVFIANDMHTALLPYLTK 471
QY 458 AYVRDHGLMOTRISIVYIHNIAHQGRGVDEFPPTLPEHYLBEHRLYDYPVGEHANYFA 517
D 472 AYVRDHGLMOTRISIVYIHNIAHQGRGVDEFPPTLPEHYLBEHRLYDYPVGEHANYFA 531
QY 518 AGKMAQVVVSPGYLMELKTVGSGGLHDIIKQNDMKTGIVNGIDNME 568
D 532 AGKMAQVVVSPGYLMELKTVGSGGLHDIIKQNDMKTGIVNGIDNME 582

RESULT 12
US-10-272-291-8
; Sequence 8, Application US/10272291
; Publication No. US20030150023A1
; GENERAL INFORMATION:
; APPLICANT: Exseed Genetics
; TITLE OF INVENTION: Starch
; FILE REFERENCE:
; CURRENT APPLICATION NUMBER: US/10/272,291
; CURRENT FILING DATE: 2002-10-17
; PRIOR APPLICATION NUMBER: 60/329,525
; PRIOR FILING DATE: 2001-10-01
; NUMBER OF SEQ ID NOS: 8
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 8
; LENGTH: 641
; TYPE: PRF
; ORGANISM: Zea mays
; FEATURE:
; OTHER INFORMATION: Starch Synthase Iia (SSIIa)
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US-10-272-291-8

Query Match      58.9%; Score 2516.5; DB 14; Length 641;
Best Local Similarity 66.2%; Pred. No. 2.9e-178;
Matches 493; Conservative 54; Mismatches 93; Indels 105; Gaps 8;

QY 56 VAAAGKKDARVDDDAASAQPARRGGATTKAERDPVKTLDRAAEGGAPAPAPR 115
D 1 MAEAEAGKQDAPERSGDAAARLPARARNA-----VSKRRDPLQ----- 38
QY 116 QDAAREPSSMGTIVNGENKSTGGGATKDSGLPAPARAPHSQNRVNVNGENKANYASPT 175
D 39 -----PVGYGSATGN-----TARTGAASQONALADVEIKSIVAAP 75
QY 176 PTSAEVAAPDSATISIDKAPESVPAEKPPSSGSNFVSAAPRLDIDSVEPELK 235
D 76 PTSAEVAAPDSATISIDKAPESVPAEKPPSSGSNFVSAAPRLDIDSVEPELK 235
QY 236 KGAIVIEEAPNPKALSPPAA-PAVQEDLMDPKYIGFEEVEAKDDGMAVADAGSEFHH 294
D 120 -----GIAFPTEPLVQBATVDFKXYIGFDEPDEAKDSSRVGADAGSEFHH 166
QY 295 QNHDSGPLAGENVNVVVAECSPMCKTGGLDVGALPKALAKRGHRVWVVRPRYDY 354
D 167 GNDSDGPLAGENVNVVVAECSPMCKTGGLDVGALPKALAKRGHRVWVVRPRYDY 226
QY 355 EEAADVGVRRYRYAAGDMEVNFHAYIDGVDFIDAPLFRHROEDYIGSGROEIMKRM 414
D 227 VEAAPDMGIRKTYRAAGDMEVNFHAYIDGVDFIDAPLFRHROEDYIGSGROEIMKRM 286
QY 415 ILFEKAAVEPMVPCGVPGVGDGNLVFIANDMHTALLPYLTKAYVRDHGLMOTRISIV 474
D 287 IL-----GVCYGDGNLVFIANDMHTALLPYLTKAYVRDHGLMOTRISIV 311
QY 475 IHNIAHQGRGVDEFPPTLPEHYLBEHRLYDYPVGEHANYFAAGKMAQVVVSPGYL 534
D 332 IHNIAHQGRGVDEFPPTLPEHYLBEHRLYDYPVGEHANYFAAGKMAQVVVSPGYL 391
QY 535 WEKTVGSGGLHDIIKQNDMKTGIVNGIDNMEKPEVDVHLKSDGYNFSGLTDSGK 594
D 392 WEKTVGSGGLHDIIKQNDMKTGIVNGIDNMEKPEVDVHLKSDGYNFSGLTDSGK 451
QY 595 ROCKEALQRELGIVADVPLLGIFRLDQKVEIADAMPVIVSODVOLVMTGTRHD 654
D 452 ROCKEALQRELGIVADVPLLGIFRLDQKVEIADAMPVIVSODVOLVMTGTRHD 511
QY 655 LBSMLAHFEREHHDKRGWVGSVRLAHRITAGADALLPSRPECGNQLYMAAYGTP 714
D 512 LBSMLAHFEREHHDKRGWVGSVRLAHRITAGADALLPSRPECGNQLYMAAYGTP 571
QY 715 VVAAGGVRTVPPDPFNHSGLGWTFDRAEAKLIEALGHCLRTYRDYKESRGLQERG 774
D 572 VVAAGV-----AGLGWTFDRAEANKLIEALRHCLDTRKYGESWKSILQARG 616
QY 775 MSQDFSMHAALKYEDVLTKAKYQW 799
D 617 MSQDFSMHAALKYEDVLTKAKYQW 641

RESULT 13
US-10-628-525-9
; Sequence 9, Application US/10628525
; Publication No. US20040185114A1
; GENERAL INFORMATION:
; APPLICANT: Keeling, Peter
; TITLE OF INVENTION: Starch Encapsulation
; NUMBER OF SEQUENCES: 37
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Greenlee, Winner and Sullivan, P.C.
; STREET: 5370 Manhattan Circle
; CITY: Boulder
; STATE: CO
```

COUNTRY: US
ZIP: 80303
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/628,525
FILING DATE: 28-JUL-2003
CLASSIFICATION: 800
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/941,445
FILING DATE: 30-SEP-1997
APPLICATION NUMBER: US 60/026,855
FILING DATE: 30-SEP-1996
ATTORNEY/AGENT INFORMATION:
NAME: Wanner, Ellen P
REGISTRATION NUMBER: 28,547
REFERENCE/DOCKET NUMBER: 89-97
TELECOMMUNICATION INFORMATION:
TELEPHONE: (303) 499-8080
TELEFAX: (303) 499-8080
INFORMATION FOR SEQ ID NO: 9:
SEQUENCE CHARACTERISTICS:
LENGTH: 669 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 9:
US-10-628-525-9

Query Match 56.9%; Score 2432; DB 16; Length 669;
Best Local Similarity 65.0%; Pred. No. 6e-172;
Matches 486; Conservative 58; Mismatches 120; Indels 84; Gaps 12;

57 AARAGKKDARVDDDAASARQPRARRGAATKVAERDPVKTLDRAAEGGAPAPAPRQ 116
1 AEAAGGKDAPPPSSGDAARLPARRNA---VSKRRPPLQ----- 37
117 DAARPPSMNGTPVNGENKSTGGGATKDSGLPAPARAPHPSTONRVPN---GENKANVA 173
38 -----PVGRYGATGN-----TARTGAASQNALADVEIETKSIVA 75
174 SPPTSLAEVAPDAAATISIDKAPESVVPKPPSSGSNFVVSASAPRLDIDSVEPE 233
76 APPTSLVFPGRGLDDPSLWDIAPEVLPAPKPLHES-----PAVDGGSN---- 121
234 LKGAIVVEAPNPKALSPPA--PAYOEDLMDFKKTYGFEERPEAKDGMVADDAGSFE 292
122 -----GIAPTVEPLVDEATWDFKKTYGFEDEPDEAKDSSVAGADDAGSFE 166
293 HHQNDSGPLAGENVMMVVAECSPMCKTGGLGVAGALPKALAKRGHRVMVVPVRYG 352
167 HYGMIIG-LGGEVMMVIVVAECSPMCKTGGLGVAGALPKALAKRGHRVMVVPVRYG 225
353 DYEAAYDVGRKTKYKAAQDMENVYFPAAYIDGVDFVFIADLPFRHROEDITYGSRQETMK 412
226 DYVAEAPDMGIRKYYKAAQDLEVVYFPAFIDGVDFVFIDAS-FRRHRODDIYGSGROETMK 284
413 RMILFCAAVEPMPHVPKALSPPA--PAYOEDLMDFKKTYGFEERPEAKDGMVADDAGSFE 472
285 RMILFCAAVEPMPHVPKALSPPA--PAYOEDLMDFKKTYGFEERPEAKDGMVADDAGSFE 344
473 MVINIIAHOGRGPVDEPFTELPEHYLEHFRLYDPVVGEGHANYFAA-GLKAAQDVVVVSP 531
345 LVINIIHIGRGRGPHPEFYMDLNTNQLHFELYPDVGEGHANYFAA-GLKAAQDVVVVSP 404
532 GYLWELKTVEGKGLHDIIRONDKTKRGIVNGIDNMENPEVDVHLKSDGTYTNSLGLTD 591
405 GYLWELKTVEGKGLHDIIRONDKTKRGIVNGIDNMENPEVDVHLKSDGTYTNSLGLTD 464
592 SGKQCKEALQRELGLQVRADVPLLGFGRDGGKGVETIADANPMWIVSQDVQLVMLGTG 651

465 AGKQCKEALQRELGLQVRADVPLLGFGRDGGKGVETIADANPMWIVSQDVQLVMLGTG 524
652 RHIDESMLRHEERBHDKRGWGFSVRLAHRITAGDALLMBRFEPCGLNQLYAAAYG 711
525 PPDLEIRMLQHLREHPKRVGWFVSLMVHRIITPGASVLMPSRFAG-GLNQLYAAAYG 583
712 TVPVHAHVGVRDVPPEPPNNSGLGWTDPRAHKLIEALGHCLTYRDKESWRGLQ 771
584 TVPVHAHVGVRDVPPEPPNNSGLGWTDPRAHKLIEALGHCLTYRDKESWRGLQ 643
772 ERGMSQPSMEHAALYEDVLLKAKYOM 799
644 ARGMSQPSMEHAALYEDVLLKAKYOM 669

RESULT 14
US-10-389-566-797
Sequence 797, Application US/10389566
Publication No. US20040025202A1
GENERAL INFORMATION:
APPLICANT: Monsanto Technology, LLC
TITLE OF INVENTION: Nucleic Acid Molecules Associated with Oil in Plants
FILE REFERENCE: 38-77(529001D)
CURRENT APPLICATION NUMBER: US/10/389,566
CURRENT FILING DATE: 2003-03-31
PRIOR APPLICATION NUMBER: US 60/365,301
PRIOR FILING DATE: 2002-03-15
PRIOR APPLICATION NUMBER: US 60/391,786
PRIOR FILING DATE: 2002-06-25
PRIOR APPLICATION NUMBER: US 60/392,018
PRIOR FILING DATE: 2002-06-26
NUMBER OF SEQ ID NOS: 2459
SOFTWARE: PatentIn version 3.2
SEQ ID NO 797
LENGTH: 694
TYPE: PRT
ORGANISM: Oryza sativa
US-10-389-566-797

Query Match 55.7%; Score 2380.5; DB 15; Length 694;
Best Local Similarity 59.2%; Pred. No. 4.3e-168;
Matches 478; Conservative 79; Mismatches 129; Indels 121; Gaps 15;

1 MSSAVAS---AASFLALASAPGSSRRRARVSAPPH--AGAG-RLHMPWPQRTARDG 54
1 MSGAIASSPATLFLAGSSSSSPR-RRSRVSGVMWHLVGGTGLRLH---WERRGLVRDG 56
55 GV--AARAGKKDARVDDDAASARQPRARRGAATKVAERDPVKTLDRAAEGGAPAP 112
57 AAVCSASAAAG---EDGVAKAK-----TKSA----- 79
113 APRQDARPPSMNGTPVNGENKSTGGGATKDSGLPAPARAPHPSTONRVVNGENKANV 172
80 -----GSSKAVAVGSI-----AKADHYE-----DS 100
173 ASPTSLAEVAPDAAATISIDKAPESVVPKPPSSGSNFVVSASAPRLDIDSVEPE 232
101 VSPSKYKPAVAKQNGEVS---RATKSDAPVSKPK-----VDSVPASKEAD--- 146
233 ELKGAIVVEAPNPKALSPPA--PAYOEDLMDFKKTYGFEERPEAKDGMVADDAGSFE 292
147 -----GNAQVESKALDKED-----VGVAEPLPEAKADAGDAGAVSSAD 187
293 HHQNDSGPLAGENVMMVVAECSPMCKTGGLGVAGALPKALAKRGHRVMVVPVRYG 352
188 DSEKESGPLAGENVMMVVAECSPMCKTGGLGVAGALPKALAKRGHRVMVVPVRYG 247
353 DYEAAYDVGRKTKYKAAQDMENVYFPAAYIDGVDFVFIADLPFRHROEDITYGSRQETMK 412
248 EYAEAKDLGVGRKRVAVAGQDSSEVSFPAFIDGVDFVLEAPFRHRRNDIYGGSRFDVLK 307

GenCore version 5.1.6
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OM nucleic - nucleic search, using sw model

Run on: June 10, 2005, 19:11:49 ; Search time 464 Seconds
(without alignments)
10022.195 Million cell updates/sec

Title: US-10-018-418a-3

Perfect score: 2842
Sequence: 1 gctgcaccaccctccgctg.....aaaaaaaaaaaaaaaaaa 2842

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 1202784 seqs, 818138359 residues

Total number of hits satisfying chosen parameters: 2405568

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%
Listing first 45 summaries

Database :

Issued Patents NA:*
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2: /cgn2_6/prodata/1/ina/5B_COMB.seq:*
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4: /cgn2_6/prodata/1/ina/6B_COMB.seq:*
5: /cgn2_6/prodata/1/ina/PCTUS_COMB.seq:*
6: /cgn2_6/prodata/1/ina/Backfile01.seq:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match Length	ID	Description
1	2392.2	84.2	2825 3 US-09-196-390-5	Sequence 5, Appl
2	2392.2	84.2	2825 4 US-09-952-677-5	Sequence 5, Appl
3	1246	43.8	2248 3 US-09-345-214-20	Sequence 20, Appl
4	1246	43.8	2248 4 US-09-743-980-20	Sequence 20, Appl
5	1245.2	43.8	1798 3 US-09-345-214-16	Sequence 16, Appl
6	1245.2	43.8	1798 4 US-09-743-980-16	Sequence 16, Appl
7	1245.2	43.8	2019 3 US-09-345-214-15	Sequence 15, Appl
8	1245.2	43.8	2019 4 US-09-743-980-15	Sequence 15, Appl
9	1104.6	38.9	2007 3 US-08-941-445A-8	Sequence 8, Appl
10	1104.6	38.9	2085 1 US-08-572-951-2	Sequence 2, Appl
11	1047.6	36.9	2097 3 US-08-941-445A-10	Sequence 10, Appl
12	912.2	32.1	2380 1 US-08-572-951-3	Sequence 3, Appl
13	806.6	28.4	2418 3 US-09-388-743-25	Sequence 25, Appl
14	806.6	28.4	2418 4 US-10-044-543-25	Sequence 25, Appl
15	737.4	25.9	2348 4 US-09-388-743-5	Sequence 5, Appl
16	737.4	25.9	2348 4 US-10-044-543-5	Sequence 5, Appl
17	717.8	25.3	2793 3 US-08-836-567-7	Sequence 7, Appl
18	717.8	25.3	2793 4 US-09-606-304-7	Sequence 7, Appl
19	711.4	25.0	1926 4 US-08-836-567-5	Sequence 5, Appl
20	711.4	25.0	1926 4 US-09-606-304-5	Sequence 5, Appl
21	354.4	12.5	5058 4 US-09-889-595-1	Sequence 1, Appl
22	354.4	12.5	5058 4 US-09-889-595-1	Sequence 1, Appl
23	254.4	9.0	2542 3 US-08-941-445A-6	Sequence 6, Appl
24	250	8.8	2267 3 US-08-679-645-25	Sequence 25, Appl
25	248.4	8.7	1818 4 US-09-731-166-3	Sequence 3, Appl
26	215.4	7.6	2383 3 US-09-192-909-1	Sequence 1, Appl
27	215.4	7.6	2383 4 US-09-931-297-1	Sequence 1, Appl

C	28	213.8	7.5	1528 3 US-09-345-214-6	Sequence 6, Appl
C	29	213.8	7.5	1528 4 US-09-743-980-6	Sequence 6, Appl
C	30	213.8	7.5	2008 3 US-09-345-214-12	Sequence 12, Appl
	31	213.8	7.5	2008 4 US-09-743-980-12	Sequence 12, Appl
	32	213.8	7.5	2491 3 US-09-345-214-5	Sequence 5, Appl
	33	213.8	7.5	2491 4 US-09-743-980-5	Sequence 5, Appl
	34	205.4	7.2	1620 3 US-08-941-445A-20	Sequence 20, Appl
	35	205.4	7.2	1752 3 US-08-941-445A-12	Sequence 12, Appl
	36	196.2	6.9	2990 1 US-08-572-951-1	Sequence 1, Appl
	37	195.8	6.9	2239 3 US-09-196-390-1	Sequence 1, Appl
	38	195.8	6.9	2239 4 US-09-952-677-1	Sequence 1, Appl
	39	188.8	6.6	2360 3 US-08-836-567-9	Sequence 9, Appl
	40	188.8	6.6	2360 4 US-09-606-304-9	Sequence 9, Appl
	41	179	6.3	1440 4 US-09-902-540-7445	Sequence 7445, Ap
	42	179	6.3	4991 4 US-09-902-540-719	Sequence 719, App
	43	171.4	6.0	1758 3 US-08-836-567-3	Sequence 3, Appl
	44	171.4	6.0	1758 4 US-09-606-304-3	Sequence 3, Appl
	45	143.4	5.0	2202 3 US-09-388-743-1	Sequence 1, Appl

ALIGNMENTS

RESULT 1
US-09-196-390-5
; Sequence 5, Application US/09196390
; Patent No. 6307125
; GENERAL INFORMATION:
; APPLICANT: Block, Martina
; APPLICANT: Lorz, Horst
; APPLICANT: Luticke, Stephanie
; APPLICANT: Walter, Lemart
; APPLICANT: Froberg, Claus
; APPLICANT: Kossmann, Jens
; TITLE OF INVENTION: NUCLEIC ACID MOLECULES ENCODING ENZYMES
; TITLE OF INVENTION: FROM WHEAT WHICH ARE INVOLVED IN STARCH
; NUMBER OF SEQUENCES: 9
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: James F. Haley, Jr., c/o Fish & Neave
; STREET: 1251 Avenue of the Americas
; CITY: New York
; STATE: New York
; COUNTRY: United States of America
; ZIP: 10020
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent Release #1.0, Version #1.30 (EPO)
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/196.390
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: DB 196 21 588.9
; FILING DATE: 29-MAY-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: DB 196 36 917.7
; FILING DATE: 11-SEP-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: PCT/EP97/02793
; FILING DATE: 28-MAY-1997
; ATTORNEY/AGENT INFORMATION:
; NAME: Haley, Jr., James F.
; REGISTRATION NUMBER: 27,794
; REFERENCE/DOCKET NUMBER: AGREVO-9
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (212) 596-9000
; TELEFAX: (212) 596-9090
; INFORMATION FOR SEQ ID NO: 5:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 2825 base pairs

```

/ TYPE: nucleic acid
/ STRANDEDNESS: single
/ TOPOLOGY: linear
/ MOLECULE TYPE: cDNA to mRNA
/ HYPOTHETICAL: NO
/ ANTI-SENSE: NO
/ ORIGINAL SOURCE:
/ ORGANISM: Triticum aestivum L.
/ STRAIN: cv. Florida
/ TISSUE TYPE: ca. 21 d Caryopses
/ IMMEDIATE SOURCE:
/ LIBRARY: cDNA library in pBluescript sk (-)
/ CLONE: pTAS1
/ FEATURE:
/ NAME/KEY: CDS
/ LOCATION: 162..2559
US-09-196-390-5

Query Match      84.2%; Score 2392.2; DB 3; Length 2825;
Best Local Similarity 93.8%; Pred. No. 0;
Matches 2613; Conservative 0; Mismatches 108; Indels 66; Gaps 9;

QY      2 CTGCGACACACTCGCGCTTGCGCGCGGCTTGCGCGGAGACCAACCGCGCATGTACCA 61
DB      89 CTGCGACACACTCGCGCTTGCGCGCGGCTTGCGGCG--GACCAACCGCGAATCGTACCA 145
QY      62 TCGCGCGCGCGGATCCGCGCGCGCATGTGCTGCGCGGTGCGGCTCGCGCGCTTC 121
DB      146 TCTCCGCGCGCGAT-----CCATGTGCTGCGCGGTGCGGCTCGCGCATCTTC 194
QY      122 CTGCGCGCTGCGCTTCGCTTCCTCCCGGAGATCACGACGCGCGGCGAGGTGAGCGCG 181
DB      195 CTGCGCGCTGCTGAGCTCTCCCGGAGATCACGACGCGCGGCGAGGTGAGCGCGCAG 254
QY      182 CCACCCCGCGCGCGCGCGCGGCTGACCTGCGCGCGCGCGCGCGCGCGCGCGCGCGCT 241
DB      255 CCACCCCGCGCGCGCGCGGAGGTGACCTGCGCGCGCGCGCGCGCGCGCGCGCGCGCT 314
QY      242 CGGACCGAGAGTGTGCGCGCGCGCGCGCGCGGAGAGACGCGAGGTGACGACGAC 301
DB      315 CGGACCGAGAGTGTGCGCGCGCGCGCGCGCGGAGAGAGACGCGGAGGTGACGACGCG 374
QY      302 GCGCGCTGCGCGAGGACGCGCGCGCGCGCGCGCGGTGCGCGCGCGCGCGCGCGAG 361
DB      375 GCGCGCTGCGTGAAGGACCGCGCGCGCGCGCGCGGTGCGCGCGCGCGCGCGCGAG 434
QY      362 CGGAGGATCCCGTGAAGACGCTCGATCGCGACCGCGCGGAGGTGCGCGCGCGCGACG 421
DB      435 CGAAGGATCCCGTGAAGACGCTCGATCGCGACCGCGCGGAGGTGCGCGCGCGCTCCG 494
QY      422 CGGACCGAGGACGACGCGCGCGCGCGCGCGCGAGTATGAACGCGACGCGGTGACGCT 481
DB      495 CGGACCGAGGACGACGCGCGCGCGCGCGCGCGCGAGTATGAACGCGACGCGGTGACGCG 554
QY      482 GAGAACAAATCTACCGCGCGCGCGCGCGCGCAACAAAGACAGCGGCTGCGCGACCGCA 541
DB      555 GAGAACAAATCTACCGCGCGCGCGCGCGCGCGCACTAAAGACAGCGGCTGCGCGACCGCA 614
QY      542 CGGCGCGCGCGCATCGGTGACCCGAGAACAGAGTACCAATGAAACCGTGAAAAAAGAGTAAAC 601
DB      615 CGGCGCGCGCGCATCGGTGACCCGAGAACAGAGACACCGGTGAAACCGTGAAAAAAGAGTAAAC 674
QY      602 GTGCGCTGCGCGCGGACGACGATAGCGAGTCTGCGCTCGGATTCGCGAGCTTACCAT 661
DB      675 GTGCGCTGCGCGCGGACGACGATAGCGAGTCTGCGCTCGGATTCGCGAGCTTACCAT 734
QY      662 TCCATCATGACAAAGCGCGGAGTCTGCTTCCAGCCGAGAAAGCGCGCGCTGCTTC 721
DB      735 TCCATCATGACAAAGCGCGGAGTCTGCTTCCAGCTGAGAAAGACGCGCGCTGCTTC 794
QY      722 GGGCTCAAAATTTCTGCTGCTTCTGCTTCCAGGCTGACATTTGACAGAGATTTGAA 781
DB      795 GGGCTCAAAATTTCTGCTGCTTCTGCTTCCAGGCTGACATTTGACAGAGATTTGAA 854
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QY      782 CTTGAACGTGAAGAGGTGCGGTCACTGTCGAAGAACTCCAAACCCAAAGGCTTTTCG 841
DB      855 CAAGAACTGAAGAGGTGCGGTGCTGTGTGAAGAAAGCTCAAGCCAAAGGCTTTTCG 914
QY      842 CCGGCTGACACCCCGCTGTACAAAGAAAGACTTTGGGACTTCAGAAATCATTTGGCTTC 901
DB      915 CCGGCTGACACCCCGCTGTACAAAGAAAGACTTTGGGACTTCAGAAATCATTTGGCTTC 974
QY      902 GAGAGCGCGTGAGAGCCAAAGATGATGCTGCGGCTGTTCAGATGATGCGGCTCCTTT 961
DB      975 GAGAGCGCGTGAGAGCCAAAGATGATGCTGCGGCTGTTCAGATGATGCGGCTCCTTT 1034
QY      962 GAACATCACCAAGACCAATGATTCGGAACCTTTGGCAGGGGAGAACGTGATGAACGTGTC 1021
DB      1035 GAACATCACCAAGACCAATGATTCGGAACCTTTGGCAGGGGAGAACGTGATGAACGTGTC 1094
QY      1022 GTGCTGCTGCTGAATGTTTCTCCCTGTGTGCAAAACAGGTGTCTTGGAGATGTTGCCGCT 1081
DB      1095 GTGCTGCTGCTGAATGTTTCTCCCTGTGTGCAAAACAGGTGTCTTGGAGATGTTGCCGCT 1154
QY      1082 GCTTTGCGCAAGGCTTTGGGAGAGAGACATCGTGTATGCTTGTGTTGATACCAAGATAT 1141
DB      1155 GCTTTGCGCAAGGCTTTGGGAGAGAGACATCGTGTATGCTTGTGTTGATACCAAGATAT 1214
QY      1142 GGGGACTATGAGGAGCTTACGATGTGCGAGTCCGAAATATCAAGAGCTGTGACAG 1201
DB      1215 GGGGACTATGAGGAGCTTACGATGTGCGAGTCCGAAATATCAAGAGCTGTGACAG 1274
QY      1202 GATATGAAATGAAATTTATTCATGCTTATATGATGAGATGATTTGTGTTCAATTGAC 1261
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QY      1262 GCTCTCTCTTTCGACACCGCGCAGGAGACATTTATGGGGGACAGACAGAAATATATG 1321
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QY      1322 AAGCGATGATTTTGTTCGCAAGGCGCTGTGAGGTTCTTTGGCAGTTCAATGCGGC 1381
DB      1395 AAGCGATGATTTTGTTCGCAAGGCGCTGTGAGGTTCTATGAGTTCATGCGGC 1454
QY      1382 GGTGTCCCTTATGGGAGTGAATCTGTGTGTTTATTTGCAAAATGATTTGGCACATGCGCATC 1441
DB      1455 GGTGTCCCTTATGGGAGTGAATCTGTGTGTTTATTTGCAAAATGATTTGGCACATGCGCATC 1514
QY      1442 CTGCGCTGCTATCGAAAGCATTTACAGGACCATGTTGATGCGTACCTCGGCTC 1501
DB      1515 CTGCGCTGCTATCGAAAGCATTTACAGGACCATGTTGATGCGTACCTCGGCTC 1574
QY      1502 ATTATGATGATATTAATATGCGCACAGAGGCGGTGCGCCAGTATGAAATTCGCGTTC 1561
DB      1575 ATTATGATGATATTAATATGCGCACAGAGGCGGTGCGCCAGTATGAAATTCGCGTTC 1634
QY      1562 ACCGAGTTGCTGAGACATACCTTGAAACATTTAGACTGTACGACCCCGTGGGTGTGAG 1621
DB      1635 ACCGAGTTGCTGAGACATACCTTGAAACATTTAGACTGTACGACCCCGTGGGTGTGAG 1694
QY      1622 CACGCCAACTACTTTCGCGCGCGCGCTGAGAGATGCGCGGACCAAGGTTGCTGCTGAGGCCCC 1681
DB      1695 CACGCCAACTACTTTCGCGCGCGCGCTGAGAGATGCGCGGACCAAGGTTGCTGCTGAGGCCCC 1754
QY      1682 GGGTACCTGTGAGAGCTCAAGCGGTGAGAGGCGGCTGGGGGCTTTCGACATCATACGG 1741
DB      1755 GGGTACCTGTGAGAGCTCAAGCGGTGAGAGGCGGCTGGGGGCTTTCGACATCATACGG 1814
QY      1742 CAGAAAGACTGGAAGACCCCGCGCATCTGTACAGGACATGCAACAATGAGGTGAACCCC 1801
DB      1815 CAGAAAGACTGGAAGACCCCGCGCATCTGTACAGGACATGCAACAATGAGGTGAACCCC 1874
QY      1802 GAGGTGAGGTCAACCTCAAGGTGCGGACGCGTACCAACTTCCTCGGGGACGCTGGAC 1861
DB      1875 GAGGTGAGGTCAACCTCAAGGTGCGGACGCGTACCAACTTCCTCGGGGACGCTGGAC 1934
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1862 TCCGAGAGCGAGTGCAGAGAGCCCTGACGCGAGCTGGAGCTGACGCTCCGCGCC 1921
1935 TCCGAGAGCGAGTGCAGAGAGCCCTGACGCGAGCTGGAGCTGACGCTCCGCGCC 1994
1922 GACGTGCGCTGCTCGGCTTCAATCGGCGCTGAGAGAGAGAGAGAGAGAGATC 1981
1995 GAGGTGCGCTGCTCGGCTTCAATCGGCGCTGAGAGAGAGAGAGAGAGATC 2054
1982 GCGGAGCGGAGTGCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGATC 2041
2055 GCGGAGCGGAGTGCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGATC 2114
2042 GCGGAGCGGAGTGCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGATC 2101
2115 GCGGAGCGGAGTGCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGATC 2174
2102 GCGGAGCGGAGTGCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGATC 2161
2175 GCGGAGCGGAGTGCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGATC 2234
2162 GCGGAGCGGAGTGCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGATC 2221
2235 GCGGAGCGGAGTGCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGATC 2294
2222 GCGGAGCGGAGTGCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGATC 2281
2295 GCGGAGCGGAGTGCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGATC 2354
2282 GCGGAGCGGAGTGCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGATC 2341
2355 GCGGAGCGGAGTGCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGATC 2414
2342 GCGGAGCGGAGTGCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGATC 2401
2415 GCGGAGCGGAGTGCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGATC 2474
2402 GCGGAGCGGAGTGCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGATC 2461
2475 GCGGAGCGGAGTGCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGATC 2534
2462 GCGGAGCGGAGTGCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGATC 2521
2535 GCGGAGCGGAGTGCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGATC 2594
2522 GCGGAGCGGAGTGCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGATC 2581
2595 GCGGAGCGGAGTGCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGATC 2640
2582 GCGGAGCGGAGTGCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGATC 2641
2641 GCGGAGCGGAGTGCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGATC 2695
2642 GCGGAGCGGAGTGCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGATC 2701
2696 GCGGAGCGGAGTGCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGATC 2728
2702 GCGGAGCGGAGTGCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGATC 2761
2729 GCGGAGCGGAGTGCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGATC 2782
2762 GCGGAGCGGAGTGCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGATC 2788
2783 GCGGAGCGGAGTGCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGATC 2809

RESULT 2
US-09-952-677-5
Sequence 5, Application US/09952677
Patent No. 6734339

GENERAL INFORMATION:
APPLICANT: Block, Martina
Lorz, Horst
Luticke, Stephanie

Walter, Lemnat
Frohberg, Claus
Kossmann, Jens
TITLE OF INVENTION: NUCLEIC ACID MOLECULES ENCODING ENZYMES
FROM WHEAT WHICH ARE INVOLVED IN STARCH
SYNTHESIS
NUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESS:
ADDRESSER: James F. Haley, Jr., c/o Fish & Neave
STREET: 1251 Avenue of the Americas
CITY: New York
STATE: New York
COUNTRY: United States of America
ZIP: 10020
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent in Release #1.0, Version #1.30 (EPO)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/952,677
FILING DATE: 14-Sep-2001
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 09/196,390
FILING DATE: 19-No. 6734339-1998
APPLICATION NUMBER: DE 196 21 588.9
FILING DATE: 29-MAY-1996
APPLICATION NUMBER: DE 196 36 917.7
FILING DATE: 11-SEP-1996
APPLICATION NUMBER: PCT/EP97/02793
FILING DATE: 28-MAY-1997
ATTORNEY/AGENT INFORMATION:
NAME: Haley, Jr., James F.
REGISTRATION NUMBER: 27,794
REFERENCE/DOCKET NUMBER: AGREVO-9
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 596-9000
TELEFAX: (212) 596-9090
INFORMATION FOR SEQ ID NO: 5:
SEQUENCE CHARACTERISTICS:
LENGTH: 2825 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: cDNA to mRNA
HYPOTHETICAL: NO
ANTI-SENSE: NO
ORIGINAL SOURCE:
ORGANISM: Triticum aestivum L.
STRAIN: cv. Florida
TISSUE TYPE: ca. 21 d Caryopses
IMMEDIATE SOURCE:
LIBRARY: cDNA library in Bluescript sk (-)
CLONE: pTAS1
FEATURE:
NAME/KEY: CDS
LOCATION: 162..2559
SEQUENCE DESCRIPTION: SEQ ID NO: 5:
US-09-952-677-5
Query Match 84.2%; Score 2392.2; DB 4; Length 2825;
Best Local Similarity 93.8%; Pred. No. 0;
Matches 2613; Conservative 0; Mismatches 108; Indels 66; Gaps 9;
2 CTGCAACCACTCCGCTGCGCGCGCTGAGCGGAGAGACCAACCGCGCATCTACCA 61
89 CTGCAACCACTCCGCTGCGCGCGCTGAGCGGAGAGACCAACCGCGCATCTACCA 145
62 TCGCGCGCGCGATCCCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCTTC 121
146 TCTCCCGCGCGCGATCCCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCTTC 194
122 CTGCGCGCGCGCTCCCG 181

Db 195 CTGCGCTCGGTAGGCTCCCGGAGATCAGCAGCGCGGAGGGTGAAGCCAG 254
QY 182 CCACCCACGCGCGGAGCGGAGCTGACTGCGCGCGTGGCCGCGCAGCGCAGGCT 241
Db 255 CCACCCACGCGCGGAGCGGAGGTTGACTGCGCGCGCGTGGCCGCGCAGCGCAGGCT 314
QY 242 CCGCAGCGAGGTGTGGCCGCGCGCGCGCGGAGAGAGACGCGAGGGTGCAGCAGAC 301
Db 315 CGCAGCGAGAGCTGTGGCGCGCTCGCGCGCGGAGAGAGAGCGCGGGATGAGCAGCGCC 374
QY 302 GCGCGCTTCGCGAGGAGCGCGCGCGCAGCGCGCGTGGCGCGCGCACCAAGTGCAGAG 361
Db 375 GCGCGCTTCGCGAGGAGCGCGCGCGCAGCGCGCGTGGCGCGCGCACCAAGTGCAGAG 434
QY 362 CCGAGGGATCCCGTCAAGACGCTGATCGCAGCGCGCGAGAGGTGGCGCGCGCAGCG 421
Db 435 CGAAGGATCCCGTCAAGACGCTGATCGCAGCGCGCGAGCGCGCGAGCGCGCGCTCCCG 494
QY 422 CCGGCAACGAGGAGAGCGCGCGCGCGTCAACGAGTATGAAAGCAGCGCGCGTGAACGCT 481
Db 495 CCGGCAACGAGGAGAGCGCGCGCGCGTCAACGAGTATGAAAGCAGCGCGCGTGAACGCG 554
QY 482 GAGAACAAATCTACCGCGCGCGCGCGCGCTAAAGACAGCGCGCTGCCACCGCGCA 541
Db 555 GAGAACAAATCTACCGCGCGCGCGCGCGCTAAAGACAGCGCGCTGCCACCGCGCA 614
QY 542 CG 601
Db 615 CG 674
QY 602 GTGCGCTTCG 661
Db 675 GTGCGCTTCG 734
QY 662 TCCATCTGTCAGAGGCG 721
Db 735 TCCATCTGTCAGAGGCG 794
QY 722 GGCCTCAATTTGCGGTCTGCGCGCTTCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 781
Db 795 GGCCTCAATTTGCGGTCTGCGCGCTTCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 854
QY 782 CCTGAATGAAGAGGCG 841
Db 855 CAGGAATGAAGAGGCG 914
QY 842 CCGCGCTTCGAGCG 901
Db 915 CCGCGCTTCGAGCG 974
QY 902 GAGGAGCG 961
Db 975 GAGGAGCG 1034
QY 962 GAACATCAGCAGAGCATGATTCGCGACTTTGGCAGGGAGAGCGTCATGAGCGTGC 1021
Db 1035 GAACATCAGCAGAGCATGATTCGCGACTTTGGCAGGGAGAGCGTCATGAGCGTGC 1094
QY 1022 GTGCGGTCTGCTGAATGTTCTCCCTGGTGCAAAACAGGTGCTTTGGAGATGTTGCCGT 1081
Db 1095 GTGCGGTCTGCTGAATGTTCTCCCTGGTGCAAAACAGGTGCTTTGGAGATGTTGCCGT 1154
QY 1082 GCTTTGGCCAGAGGTTTGGCGAGAGAGAGCATGTGTATGTTGTGTGTGTGTGTGTGTGT 1141
Db 1155 GCTTTGGCCAGAGGTTTGGCGAGAGAGAGCATGTGTATGTTGTGTGTGTGTGTGTGTGT 1214
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Db 1275 GATATGGAAGTGAATTTTCATGCTTATTCATGAGAGTGAATTTTGTGTTCATTTGAC 1334
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Db 1515 CTGCTGTCTATCTGAAGAGATTTACAGGAGCCATGATTTGATGCACTGCTGCTCC 1574
QY 1502 ATTATGGTATACATTAACATCGCGCACAGAGGCGGTGGCCCACTGATGAAATCCCGTTCC 1561
Db 1575 ATTATGGTATACATTAACATCGCGCACAGAGGCGGTGGCCCACTGATGAAATCCCGTTCC 1634
QY 1562 ACCGAGTGTGCTGAGCACTACCTTGAAACATTTGACACTGTACAGACCCCGTGGGTGTGAG 1621
Db 1635 ACCGAGTGTGCTGAGCACTACCTTGAAACATTTGACACTGTGTACAGACCCCGTGGGTGTGAA 1694
QY 1622 CAGGCACTACTTCCG 1681
Db 1695 CAGGCACTACTTCCG 1754
QY 1682 GGGTACCTGTGGAGCTCAAGAGCGGTGAGAGGCGCGCTGGGGCTTTCAGCATATACGG 1741
Db 1755 GGGTACCTGTGGAGCTCAAGAGCGGTGAGAGGCGCGCTGGGGCTTTCAGCATATACGG 1814
QY 1742 CAGAGCACTGGAAGACCG 1801
Db 1815 CAGAGCACTGGAAGACCG 1874
QY 1802 GAGGTGACGCTCCACCTCAAGTGGAGCGGCTACACCACTTCTCCCTGGGGAGCGGTGAC 1861
Db 1875 GAGGTGACGCTCCACCTCAAGTGGAGCGGCTACACCACTTCTCTCTGAGAGCGGTGAC 1934
QY 1862 TCCGCAAGCGGAGGTGCAAGAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1921
Db 1935 TCCGCAAGCGGAGGTGCAAGAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1994
QY 1922 GAGGTGCGGCTGCTCGGCTTATCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1981
Db 1995 GAGGTGCGGCTGCTCGGCTTATCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 2054
QY 1982 GCGGAGCGGCAATGCGCTGAGTGTGAGCGAGAGCGTGAAGCTGATCAATGCTGGGACCGGC 2041
Db 2055 GCGGAGCGGCAATGCGCTGAGTGTGAGCGAGAGCGTGAAGCTGATCAATGCTGGGACCGGC 2114
QY 2042 CGCAGCAGCTTGAGAGCATGCTGCGGCACTTTCAGCGGAGGAGCAGCAGAGGTGCGC 2101
Db 2115 CGCAGCAGCTTGAGAGCATGCTGCGGCACTTTCAGCGGAGGAGCAGCAGAGGTGCGC 2174
QY 2102 GGGTGGGTGGGGTTCTCGGTGCGCTGCGGCGCAGCGGATCAACGCGGCGCGCGCGCTC 2161
Db 2175 GGGTGGGTGGGGTTCTCGGTGCGCTGCGGCGCAGCGGATCAACGCGGCGCGCGCGCTC 2234
QY 2162 CTGATGCCCTCCCGGTTTCAGCGCGGTGCGGTTGAACAGCTTTACGCAATGAGCTACGGC 2221
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Db 2295 ACCGTCCTGCTGTCAGCGCGCTGCGGCGGAGGAGCAGCGTGCAGCGCTTGCACCCC 2354
QY 2282 TTCAACCACTCCGGGCTGTGGGTGAAGCTTTCAGCGCGCGAGGCGCAGCAAGCTGATGAG 2341
Db 2355 TTCAACCACTCCGGGCTGTGGGTGAAGCTTTCAGCGCGCGAGGCGCAGCAAGCTGATGAG 2414

QY	2342	GCCTCGGGCACTGCTCCGACCTTACCGGACCTAACAGAGAGACTGGAGGGGCTCCAG	2401
Db	2415	GCCTCGGGCACTGCTCCGACCTTACCGGACCTTACAGAGAGACTGGAGGGGCTTCCAG	2474
QY	2402	GAGCGCGGCATGTGCGACGAGCTTTCAGCTGGAGCATGCGCCCAAGCTCTACGAGGACGTC	2461
Db	2475	GAGCGCGGCATGTGCGACGAGCTTTCAGCTGGAGCATGCGCCCAAGCTCTACGAGGACGTC	2534
QY	2462	CTCCTCMAAGGCGCAGTATACAGTGGTGAACGCTACCTGTATACCGCTCCAGCCCGGCAATGC	2521
Db	2535	CTCGTCAAGGCGCAGTATACAGTGGTGAACGCTACCTGTATACCGCTCCAGCCCGGCAATGC	2594
QY	2522	GTGCATGTCATGAGAGGGGTGAACCTGCGCATTTGCGCCCGCAGAGAACTGTCATCTTCTCG	2581
Db	2595	G----TGTCATGACAGATGAGAACT--GCATTGGCGACGCAAGAAAGTGCAT-----	2640
QY	2582	ATGGGAGCGCCCGGCATCCGCGACGTGCACTGAGAGGTGTGTGTGTTGAGAGCCT	2641
Db	2641	---GAGAGCGCCGGATCCGCGAAGTATACAGTACAT--GAGGTGTGTGTGTTGAGAGCCT	2695
QY	2642	GATTCGCGATCTGCATCTGTGTCCTTAGCAGATTAAGCGGACGTAGGGAAGCGCTCCTGT	2701
Db	2696	GATTC-----CATTCGGCCCCGTAGAGAGTAAAGCG-----	2728
QY	2702	TGCAGGTATATGGAATGTTGTCACTTGTGATTTGATTTGCTATGTTGTATGCGTTAT	2761
Db	2729	---AGGTATATGGAATCTT---AACTTGGATTTGATTTGTTATGTTGTGTGCATTTAT	2782
QY	2762	TACATGTTGTTACTTATCTTCTGTTAA	2788
Db	2783	TACATGTTGTTACTTATCTTCTGTTAA	2809

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RESULT 3
US-09-345-214-20
Sequence 20, Application US/09345214
Patent No. 6392120
GENERAL INFORMATION:
APPLICANT: Lightner, Jonathan E.
APPLICANT: Brogille, Karen E.
TITLE OF INVENTION: MODIFICATION OF STARCH BIOSYNTHETIC ENZYME GENE
TITLE OF INVENTION: EXPRESSION TO PRODUCE STARCHES IN GRAIN CROPS
FILE REFERENCE: BB-1147
CURRENT APPLICATION NUMBER: US/09/345,214
CURRENT FILING DATE: 1999-06-30
EARLIER APPLICATION NUMBER: 06/094,436
EARLIER FILING DATE: 1998-07-28
NUMBER OF SEQ ID NOS: 20
SOFTWARE: Microsoft Office 97
SEQ ID NO 20
LENGTH: 2248
TYPE: DNA
ORGANISM: Zea mays
US-09-345-214-20

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Query Match	43.8%;	Score 1246;	DB 3;	Length 2248;
Best Local Similarity	84.6%;	Pred. No. 3.2e-257;		
Matches 1399;	Conservative	0;	Mismatches 255;	Indels 0; Gaps 0;

Qy	840	GGCCGCTGAGACCCCGCGTGTACAGAAAGACCTTTGGGACTTCAAGAAATPACTTGGCT	899
Db	553	CTCTTACAGTTTGAACACTTAGTATACAGGAGGCGCACTTGGGATTTTGAAGAAATACATCGGTT	612
Qy	900	TCGAGAGACCCGCTGAGGCGCCAAAGATATGCGGCTGTTCAGATGATGCGGGCTCTCT	959
Db	613	TTTGACGAGCCCTGACGAGCCGAGATGATTTCCAGGGTTGGTGCAGATGATGCTGGTTCTT	672
Qy	960	TTGACATCAACAGAACCATGATTTCCGGACCTTTGGCAGGGGAGAACGTATGAACTGG	1019
Db	673	TTTGAACTTTATGGGGACATGATTTCTGGGCTTTGGCCGGGAGAAATGTTATGAACTGTA	732
Qy	1020	TCGTCGCGCTGCTGAATGTTCTCCCTGTCGCAAAACAGGTGTCCTTGGAGATGTTGCCG	1079

[illegible]

Db 1813 GCGGGGTGCGGGTCTCGGTCCCTATGCGCATCCGATCCAGCGCGCGCCGACGCTGC 1872
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Db 1873 TGGTGATGCGCCTCCCGCTTGCAGCCCTGCGGGCTGMAACAGCTCTAGCCGATGGCATACG 1932
Qy 2220 GCACCGTCCCGGTGCTGACGCGGTGCGGGGTGAGGGACACCGTCCCGCTTTCAGC 2279
Db 1933 GCACCGTCCCGGTGCTGACGCGGTGCGGGGTGAGGGACACCGTCCCGCTTTCAGC 1992
Qy 2280 CCTTCAACCACTCCGGGCTGCGGGTGAAGCTTCGACCGCGCGGAGCCGCAAGAGTGAATG 2339
Db 1993 GTTTCACGAGCGCGGGCTGCGGTGAAGCTTTTGAACCGCGCGGAGCCGCAAGAGTGAATG 2052
Qy 2340 AGGCGCTGCGGCACTGCTCCGACCTACCGGAGCTCAAGAGAGCTGAGGGGCTCC 2399
Db 2053 AGGCGCTGCGGCACTGCTCCGACCTACCGGAGCTCAAGAGAGCTGAGGGGCTCC 2112
Qy 2400 AGGAGCGCGGATGTCGACGACTTCACTGAGAGCATGCCGCAAGCTCTACGAGGACG 2459
Db 2113 AGGCGCGCGGATGTCGACGACTTCACTGAGAGCATGCCGCTGAGCTCTACGAGGACG 2172
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Db 2173 TCCCTTGAAGGCCAAGTACAGTGTGAAGCT 2206

RESULT 4
US-09-743-980-20
; Sequence 20, Application US/09743980
; Patent No. 6570008
; GENERAL INFORMATION:
; APPLICANT: E. I. du Pont de Nemours and Company
; TITLE OF INVENTION: MODIFICATION OF STARCH BIOSYNTHETIC ENZYME GENE
; TITLE OF INVENTION: EXPRESSION TO PRODUCE STARCHES IN GRAIN CROPS
; FILE REFERENCE: BB-1147-A
; CURRENT APPLICATION NUMBER: US/09/743,980
; CURRENT FILING DATE: 2001-05-14
; PRIOR APPLICATION NUMBER: 060/094,436
; PRIOR FILING DATE: 1998-07-28
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: Microsoft Office 97
; SEQ ID NO 20
; LENGTH: 2248
; TYPE: DNA
; ORGANISM: Zea mays
US-09-743-980-20

Query Match 43.8%; Score 1246; DB 4; Length 2248;
Best Local Similarity 84.6%; Pred. No. 3.2e-257;
Matches 1399; Conservative 0; Mismatches 255; Indels 0; Gaps 0;
Qy 840 CGCGGCTGACGCCCCCGCTGTACAAGAGCATTTGGGACTTCAAGAAATCACTTGGCT 899
Db 553 CTCCTACAGTTGAACCAATGATACAGAGGCGCACTTGGATTTCAAGAAATCACTCGGT 612
Qy 900 TCGAGAGCCCGTGAAGGCCAAGATGATGGCTGTGTGAGATGATCGGGCTCT 959
Db 613 TTGACGAGCCTGAGAGGAGGAGATGATTCAGAGGTTGTGACAGATGATGCTGTTCTT 672
Qy 960 TTGAACATCACAGAACCATGATTCGGAACCTTTGGCAGGGGAGAACGTCATGAAGCTG 1019
Db 673 TTGAACATTAAGGAGCAATGATTCGAGGCTTTGGCGGGGAGAAATGTTATGAACGTGA 732
Qy 1020 TCGTGTGCTGTGATGTTCTCCCTGTGTGCAAAACAGGTGTGCTTGGAGATGTTGCCG 1079
Db 733 TCGTGTGCTGTGATGTTCTCCCTGTGTGCAAAACAGGTGTGCTTGGAGATGTTGG 792
Qy 1080 GTGCTTTGCGCAAGCTTTTGGCGAAGAGAGACATCGTGTATGTTGTGGTACCAAGT 1139
Db 793 GAGCTTTACCAAGGCTTTTACGAGAAAGAGACATCGTGTATGTTGTGGTACCAAGT 852
Qy 1140 ATGGGAGCTATGAGAGGAGCTTACGATGTGCGAGTCCGAAATACTACAGAGGCTGCGAC 1199

Db 853 ATGGGAGCTATGAGAGGAGCTTTGATATGGAAATCCGAAATCTACAAAGCTGACAGAC 912
Qy 1200 AGATATGAGAGTGAATATTTTCATGCTTATATGATGAGATGATTTGTGTTCAATG 1259
Db 913 AGGACTAGAGTGAATATTTTCATGCTTATATGATGAGATGATTTGTGTTCAATG 972
Qy 1260 ACCTCTCTCTTCCGACACCGCGAGAGACATTAATGGGGGACAGACAGAAATTA 1319
Db 973 ATGGCCCTCTTTCCGACACCGTCAAGATATATGGGGGAGTAAAGCAGAAATTA 1032
Qy 1320 TGAAGCGATGATTTTGTCTGCAAGGCGCTGTGAGGTTCTTGGACATTTCCATGCG 1379
Db 1033 TGAAGCGATGATTTTGTCTGCAAGGTTCTGTGAGGTTCTTGGACATTTCCATGCG 1092
Qy 1380 GCGGTGCTCTTATGAGGAGTGAATATGTTGTTTATGCAAAATGATGACACGCGAC 1439
Db 1093 GTGTGTGTCTACGAGATGAAATTTGTGTTCATTTGCCAATGATTTGGACACTGAC 1152
Qy 1440 TCTGCTGTCTATCTGAAAGCATATTTACAGGACCATATGTTGATGACAGTACCTGCT 1499
Db 1153 TCTGCTGTCTATCTGAAAGCATATTTACAGGACCATATGTTGATGACAGTACCTGCT 1212
Qy 1500 CCATTATGATGATACATTAATATGCGGACAGAGGCGGTGACATGATGATTTCCCT 1559
Db 1213 CCGTCTCTGTCATACATTAATATGCGGACAGAGGCGGTGACATGATGATTTCCCT 1272
Qy 1560 TCAACGAGTGTGCTGAGACATTAATGAGACATTTACAGTGTGACAGCCCGTGTGCTG 1619
Db 1273 ACATGAGCTTGTCTGAGACATTAATGAGACATTTACAGTGTGACAGCCCGTGTGCTG 1332
Qy 1620 AGCAGCGCAATCTTTCGCGCGCGCTGAAATGCGGACAGAGTGTGTGTGAGCC 1679
Db 1333 AGCAGCGCAATCTTTCGCGCGCGCTGAAATGCGGACAGAGTGTGTGAGCTGTGAGCC 1392
Qy 1680 CCGGATACCTGTGTGAGCTCAAGAGTGTGAGAGGCGCTTGGGGCTTCAAGACATCAT 1739
Db 1393 GCGGCTACCTGTGTGAGCTCAAGAGTGTGAGAGGCGCTTGGGGCTTCAAGACATCAT 1452
Qy 1740 GCGGAGAGCATGGAAGACCGCGGACATGCTCAACGCGCATGCAACATGAGTGAAGC 1799
Db 1453 GTTCTACAGCTGGAAGATCAATGAGCATGCTGAAACGCGCATGCAACATGAGTGAAGC 1512
Qy 1800 CCGAGTGAAGCTTCACTCAAGTGTGAGCGGCTTACCAACTTCTCCCTGGGAGCGCTG 1859
Db 1513 CCAAGTGAAGCTTCACTCAAGTGTGAGCGGCTTACCAACTTCTCCCTGGGAGCGCTG 1572
Qy 1860 ACTCGGCAAGCGGCACTGTGAGAGGCGCTTGTGAGCGGAGCTGTGAGCTGTGAGCTG 1919
Db 1573 ACCTGTGAAGCGGCACTGTGAGAGGCGGCTTGTGAGCGGAGCTGTGAGCTGTGAGCTG 1632
Qy 1920 CCGAGTGAAGCTTCACTCAAGTGTGAGCGGCTTGTGAGCGGAGCTGTGAGCTGTGAGCTG 1979
Db 1633 ACCTGTGAAGCGGCACTGTGAGAGGCGGCTTGTGAGCGGAGCTGTGAGCTGTGAGCTG 1652
Qy 1980 TCGGAGAGCGGCACTGTGAGAGGCGGCTTGTGAGCGGAGCTGTGAGCTGTGAGCTG 2039
Db 1693 TCGGAGAGCGGCACTGTGAGAGGCGGCTTGTGAGCGGAGCTGTGAGCTGTGAGCTG 1752
Qy 2040 GCGGCAAGAGCTGTGAGAGGCGGCTTGTGAGCGGAGCTGTGAGCTGTGAGCTGTGAGCTG 2099
Db 1753 GCGGCAAGAGCTGTGAGAGGCGGCTTGTGAGCGGAGCTGTGAGCTGTGAGCTGTGAGCTG 1812
Qy 2100 GCGGCAAGAGCTGTGAGAGGCGGCTTGTGAGCGGAGCTGTGAGCTGTGAGCTGTGAGCTG 2159
Db 1813 GCGGCAAGAGCTGTGAGAGGCGGCTTGTGAGCGGAGCTGTGAGCTGTGAGCTGTGAGCTG 1872
Qy 2160 TCCCATGACCCCTCCCGGTTGAGCCGTGCGGGTTGAAACAGCTTTAGCCATGCGCTACG 2219
Db 1873 TGGTGATGCGCCTCCCGCTTGCAGCCCTGCGGGCTGMAACAGCTCTAGCCGATGGCATACG 1932
Qy 2220 GCACCGTCCCGGTGCTGACGCGGTGCGGGGTGAGGGACACCGTCCCGCTTTCAGC 2279

Db 1933 GCACCGCTCTGTGTGTCAGCGCCGTGGGCGGGCTCAGGAGACACCGTGGCCGCTTCGACC 1992
Qy 2280 CCTTCAACCACTCCGCGCTCGGGTGGAGCTTCCAGCCGCGCCGAGCCGCAACAAGCTGATCG 2339
Db 1993 GCTTTCAGCGACGCGCGGCTGGGGTGACTTTTGAACCGCGCCGAGCAACAACCTGATCG 2052
Qy 2340 AGGCGCTCGGAGCACTGCTCCGACCACTACCGGAGCTCAAGAGAGCTGAGGGGCTCC 2399
Db 2053 AGGCGCTCAGGCACTGCTCGACACGACCTACCGAACTACGAGAGAGCTGAGAGAGTCTCC 2112
Qy 2400 AGGAGCGCGGCACTGTGCGAGAGCTTACGTGGAGAGCATGCGCCCAAGCTTACGAGAGC 2459
Db 2113 AGGCGCGGCGCATGTGCGAGAGCTCCTCAGCTGGGACACGCGGCTGAGCTTACGAGAGC 2172
Qy 2460 TCCTCTCAGAGGCGCAAGTACAGTGTGGAACGCT 2493
Db 2173 TCCTGTGCAAGGCGCAAGTACAGTGTGGAACCT 2206

RESULT 5

US-09-345-214-16/c
; Sequence 16, Application US/09345214
; Patent No. 6392120
; GENERAL INFORMATION:
; APPLICANT: Lightner, Jonathan E.
; TITLE OF INVENTION: MODIFICATION OF STARCH BIOSYNTHETIC ENZYME GENE
; FILE REFERENCE: BB-1147
; CURRENT APPLICATION NUMBER: US/09/345,214
; EARLIER FILING DATE: 1999-06-30
; EARLIER APPLICATION NUMBER: 060/094,436
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: Microsoft Office 97
; SEQ ID NO 16
; LENGTH: 1798
; TYPE: DNA
; ORGANISM: Zea mays
US-09-345-214-16

Query Match 43.8%; Score 1245.2; DB 3; Length 1798;
Best Local Similarity 84.5%; Pred. No. 4,4e-257;
Matches 1397; Conservative 2; Mismatches 255; Indels 0; Gaps 0;
Qy 840 CGCGCGCTGCAAGCCCGCTGTACCAAGAGACCTTTGGGACTTCAAGAAATACATGGCT 899
Db 1696 CTCCTACAGTTGAGCCATTAGTACAGAGGCCACTTGGATTTCAGAAATACATCGCTT 1637
Qy 900 TCGAGAGAGCCCGTGGAGGCCAAGATGATGGCTGGCTGTTCAGATGATGCGGCTCT 959
Db 1636 TTACAGAGCTGTGAGAGCGAAGAGATGATTCAGGGTGTGTGAGATGATGCTGCTT 1577
Qy 960 TTGAACATCACAGAACCATGATTCGAGACCTTTGGAGGGGAGAAAGTATGAAAGTGG 1019
Db 1576 TTGAACATTAATGGAGCAATGATTCGAGCTTTGGCGGAGAAATGATGAAAGTGA 1517
Qy 1020 TCGTGTGCTGTGAATGTTCTCCCTGTGCAAAACAGGTGTCTTGAAGATGTTGCG 1079
Db 1516 TCGTGTGCTGTGAATGTTCTCCATGATGCAAAACAGGTGTCTTGAAGATGTTGCG 1457
Qy 1080 GTGCTTGTCCCAAGGCTTTGGCGAAGAGAGACATGCTGTTATGTTGTGTATCCAAAGT 1139
Db 1456 GACCTTATCCCAAGGCTTTAGCGAAGAGAGACATGCTGTTATGTTGTGTATCCAAAGT 1397
Qy 1140 ATGGAGGACTATGAGAGAGCTACGATGTCCGAGTCCGAAATACTACAGAGCTGTGAC 1199
Db 1396 ATGGAGGACTATGAGAGAGCTTTGATATGGAATCCGAAATACTACAAAGCTGTGAGAC 1337
Qy 1200 AGGATATGAGAGTGAATTAATTTCCATGCTTAATATGATGAGAGTGAATTTGTTCATTG 1259
Db 1336 AGGAGCTAGAAAGTGAATTAATTTCCATGCTTAATATGATGAGAGTGAATTTGTTCATTG 1277

Qy 1260 ACCTCTCTCTCTTCCGACACCGCCAGAGAACATTTATGAGGGGACAGACAGAAATTA 1319
Db 1276 ATGCCCCCTCTTTTCCGGACCGTCAAGATGACATATATGGGGGAAATGAGGAAATCA 1217
Qy 1320 TGAAGGCAATGATTTTGTCTGCAAGCGCGCTGTGAGGTTCTTGGACGTTCCATGCG 1379
Db 1216 TGAAGGCAATGATTTTGTCTGCAAGGTTGTTGAGGTTCTTGGACGTTCCATGCG 1157
Qy 1380 GCGGTCTCCCTTATGAGGATGGAATCTGTGTTTATGGAATGATTTGCAACGCGCAC 1439
Db 1156 GTGTGTGTGTGAGAGATGGAATTTGTGTTCATGTCCATATGATGAGACATGAC 1097
Qy 1440 TCCTGCTGTCTATGAAAGCATATTTACAGGAGACCATGTTGATGATGATGATGATGAT 1499
Db 1096 TCCTGCTGTCTATGAAAGCATATTTACAGGACCATGTTGATGATGATGATGATGAT 1037
Qy 1500 CCAATATGATGATATACATACATGCGCACGAGGCGGTGCGCCAGTATGAAATTCCTGT 1559
Db 1036 CGTCTCTGTATACATACATGCGCACGAGGCGGTGCGGTCTGTATGAAATTCCTGT 977
Qy 1560 TCAACGAGTGTCTGAGCACTACTGGAACACTTCAAGCTGTACGACCCCGTGGTGTG 1619
Db 976 ACATGAGACTGTCTGAACTACTTTCACATTTGAGCTGTACGATCCCGTGTGCG 917
Qy 1620 AGCAGCCCAACTACTTGTGCGCGCGGCTGTGAATGAGCGAGCTGTGTGTGTGTGTGAGCC 1679
Db 916 AGCAGCCCAACTACTTGTGCGCGGCTGTGAATGAGCGAGCGGTGTGTGTGTGTGTGAGCC 857
Qy 1680 CCGGTAACCTGTGTGAGCTCAAGACGCTGAGAGGCGGCTGTGGGCTTCAAGCATCATAC 1739
Db 856 GCGGTAACCTGTGTGAGCTGTGAAGACGATGGAAGGCGGCTGTGGGCTTCAAGCATCATAC 797
Qy 1740 GGCAGAACGACTGGAAGACCCGCGGATGTGCAAGCGCATTCGACATGACATGAGTGAACC 1799
Db 796 GTTCTACGACTGTGAAGATCAATGATGATGTGAACGCGATCGACACAGAGATGGAACC 737
Qy 1800 CCGAGGTGAGCGTCCACTCAAGTCCGACGAGCTTACCAACTTCTCTCTGTGGAGCCTGG 1859
Db 736 CCAAGGTGAGCGTCCACTCCGCTCCGACGAGCTTACCAACTTCTCTCTGTGGAGCCTGG 677
Qy 1860 ACTCCGCGAAGCGGCAAGTGTGAAGAGGCGCTGTGAGCGGAGCTGTGGCTGTGAGTCCGG 1919
Db 676 AGCTGTGAAGGCGGAGTGTGAAGGCGGCTGTGAGCGGAGCTGTGGCTGTGAGTCCGG 617
Qy 1920 CCGAGTGTGCTGTGCTGTGCTTATGCGCGCTGTGACGCGGAGAGAGGCGGTGAGATCA 1979
Db 616 ACAGCTGTGCGCTGTGCTGTGCTTATGCGGCTGTGATGTGACAGAAAGGCGGTGAGATCA 557
Qy 1980 TCGCGAGCGCATAGCCCTGGAATGTGAGCGAGGACGTGACAGTGTGATGCTGGGACCG 2039
Db 556 TCGGAGACGGAATGCGGTGATGTGCGGAGAGGACGTGATGTGATGTGAGGACCG 497
Qy 2040 GCGCGCACGACTGTGAGAGCATGCTGCGGACTTTCAGCGGAGAGCACAGCAAGGTGC 2099
Db 496 GCGCGCCGCACTGTGAGAGCATGCTGCGGACTTTCAGGAGGAGGACATCCCAAGAGTGC 437
Qy 2100 GCGGAGTGTGGGCTTCTCGGTGCGCTGTGCGGACCGGATCACGGGCGGCGCGAGCGCG 2159
Db 436 GCGGAGTGTGGGCTTCTCGGTGCGCTGTGCGGATCACGGGCGGCGCGAGCGGTGC 377
Qy 2160 TCCTCATGCTCTCGGCTGTGAGCGGTGTGAGCGGCTTTCAGGACATGAGGCTGACG 2219
Db 376 TGGTATGCTCTCTCGGCTGTGAGCGGTGTGAGCGGCTTTCAGGACATGAGGCTGACG 317
Qy 2220 GCACCGTCTCCGCTGTGACAGCGCGTGTGCGGAGTGAAGGACACCGTGTGCGCGCTTGCAGC 2279
Db 316 GCACCGTCTCTGAGTGTGAGAGCGCGTGTGCGGAGTGAAGGACACCGTGTGCGCGCTTGCAGC 257
Qy 2280 CTTTCAACCACTTCGCGCTGTGGGTGAGCTTCAACCGCGCGAGCGGACCAAGCTGATG 2339
Db 256 CGTTTCAGCGACGCGCGGCTGTGGGTGAGCTTTCAGCGCGGCGGACCAAGCTGATG 197
Qy 2340 AGGCGCTCGGAGCACTGCTCCGACCTTACCGGAGCTTACAGAGAGCTGAGAGGCGCTCC 2399

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Db AGGGCTCAGGCTGCTCGACACGTAACCGAACTACGAGAGAGCTGGAAAGTCTCC 137
Qy 2400 AGAGCGCGGATGCTCGACAGACTTCAGCTGGGAGCATGCCGCAAGCTCAACGAGACG 2459
Db 136 AGGGCGCGGATGCTCGAGAGCTCGAGCTGGGACCAACGCGGCTGAGCTCAACGAGACG 77
Qy 2460 TCCTCTCAAGGCCAAGTACCACTGAGTGAAGCT 2493
Db 76 TCCTGTCAAGGCCAAGTACCACTGAGTGAAGCT 43

RESULT 6
US-09-743-980-16/c
; Sequence 16, Application US/09743980
; Patent No. 6570008
; GENERAL INFORMATION:
; APPLICANT: E. I. du Pont de Nemours and Company
; TITLE OF INVENTION: MODIFICATION OF STARCH BIOSYNTHETIC ENZYME GENE
; TITLE OF INVENTION: EXPRESSION TO PRODUCE STARCHES IN GRAIN CROPS
; FILE REFERENCE: BB-1147-A
; CURRENT APPLICATION NUMBER: US/09/743,980
; CURRENT FILING DATE: 2001-05-14
; PRIOR APPLICATION NUMBER: 060/094,436
; PRIOR FILING DATE: 1998-07-28
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: Microsoft Office 97
; SEQ ID NO 16
; LENGTH: 1798
; TYPE: DNA
; ORGANISM: Zea mays
US-09-743-980-16

Query March 43.8%; Score 1245.2; DB 4; Length 1798;
Best Local Similarity 84.5%; Pred. No. 4.4e-257;
Matches 1397; Conservative 2; Mismatches 255; Indels 0; Gaps 0;

Qy 840 CGCCGCTGACGCCCGCTGTACAGAGACCTTTGGGACTTTCAGAAATACATTGACT 899
Db 1696 CTCCTACAGTTGAGCATTAGTACAGAGGCGCACTTGGGAATTCAGAAATACATTGACT 1637
Qy 900 TCGAGAGACCCGCTGAGAGCGCAAGATGATGCTGGCTGTTGACATGATGCGGCTCT 959
Db 1636 TTGACGAGCCCTGAGAGCGAAGGATGATTCAGAGTGTGTGACAGATGATGCTGTTCTT 1577
Qy 960 TTGAACATCAACAGACATGATTCGCGAAGCTTTGGAGGAGGAGAAAGTCAATGAACGTG 1019
Db 1576 TTGAACATCAATGAGGAGCAATGATTCGCGAAGCTTTGGAGGAGGAGAAAGTCAATGA 1517
Qy 1020 TCGTGTGCTGTGTAATGTTCTCCCTGTGTGCAAAAGAGGTGCTTTGAGAGTGTGCG 1079
Db 1516 TCGGTGTGCTGTGTAATGTTCTCCATGTGTGCAAAAGAGGTGCTTTGAGAGTGTGCG 1457
Qy 1080 GTGCTTGTGCAAGGCTTTGCGAAGAGAGACATCGTGTATGTTGTTGTGTACCAAGT 1139
Db 1456 GAGCTTTAACCAAGGCTTTAGCGAAGAGAGACATCGTGTATGTTGTGTGTACCAAGT 1397
Qy 1140 ATGGGAGCTATGAGAGAGCCAGATGTGCGAGTCCGAAATATCAAGAGCTGCTGAGC 1199
Db 1396 ATGGGAGCTATGAGAGCCCTTGTATGAGAAATCCGAAATATCAAGAGCTGCTGAGC 1337
Qy 1200 AGATATGAGAGATTAATTTATTCATGCTTATATGATGAGTGAATGTTGTGTCAATG 1259
Db 1336 AGGACCTAGAGATGATTAATTTATTCATGCTTATATGATGAGTGAATGTTGTGTCAATG 1217
Qy 1260 AGCTCTCTCTCTCGACACCGCAGAGAAAGATTTATGAGGAGCAGACAGAGAAATTA 1319
Db 1276 ATGCGCTCTCTCTCGGACACCGTCAAGATGACATATATGAGGAGAAATTAATTA 1217
Qy 1320 TGAAGCGCATGATTTGTTCTGCAAGGCGCTGTGAGGTTCTTGGACAGTTCCAAAGCG 1379
Db 1216 TGAAGCGCATGATTTGTTCTGCAAGGCGTGTGTGAGGTTCTTGGACAGTTCCAAAGCG 1157

Qy 1380 GCGGTGCTCCCTTATGAGGATGAAATCTGTGTTTATTTGCAAAATGATTTGACACAGCGCAC 1439
Db 1156 GTGTGTGTCTACGGAGATGAAATTTGTGTTCATTTGCAATGATTTGACACACTGTAC 1097
Qy 1440 TCCTGCTGTCTATCTGAAGGATATTACAGGAGCCATGTTGATGACATTAATCTGCT 1499
Db 1096 TCCTGCTGTCTATCTGAAGGATATTACAGGAGCCATGTTGATGACATTAATCTGCT 1037
Qy 1500 CCATTTATGATGATACATTAATCATGCGGACAGAGGCGCTGAGCCAGTATGATTAATCCGT 1559
Db 1036 CCGTCTCTGTCTATCATTAATCATGCGGACAGAGGCGCTGATGATGATTAATCCGT 977
Qy 1560 TCAACGAGTTGCTGAGCACTTCTGAAACATTCAGACTGACACCCGTGGGTGTG 1619
Db 976 ACATGAGCTTGCTGAAACATTAATCATTCATTTGAGCTGTACGATCCCGTGGTGGC 917
Qy 1620 AGCACGCCAATCTACTTGTGCGCGCGGCTGTAAGATGCGGACCAAGTGTGTGTGAGCC 1679
Db 916 AGCACGCCAATCTACTTGTGCGCGGCTGTAAGATGCGGACCAAGTGTGTGAGCTGTCAGCC 857
Qy 1680 CCGGCTACTGTGGAGCTCAAGACGGTGTGAGGCGGCTGGGGCTTCAAGACATCAATAC 1739
Db 856 GCGGCTACTGTGGAGCTCAAGACGGTGTGAGGCGGCTGGGGCTTCAAGACATCAATAC 797
Qy 1740 GGCAGAACGACTGGAAGACCGCGGCACTGTCAACCGGATGACCAACATGAGTGAACC 1799
Db 796 GTTCTTAACGACTGGAAGATCAATGGATCGTGAACCGGATGACCAACATGAGTGAACC 737
Qy 1800 CCGAGTGTGACCTTCACCTCAAGTGTGAGCGGCTTACACCACTTCTCCCTGGGACGCTGG 1859
Db 736 CCAAGTGTGACCTTCACCTCAAGTGTGAGCGGCTTACACCACTTCTCCCTGGGACCTGG 677
Qy 1860 ACTCCGCAAGCGGCAAGTGTGACAGAGGCGCTGACAGCGGAGCTGAGGCTGAGGCTCGCG 1919
Db 676 ACCTGTGAAGAGCGGCAAGTGTGACAGAGGCGGCTGACAGCGGAGCTGAGGCTGAGGCTCGCG 617
Qy 1920 CCGAGTGTGCGCTGTGCGCTTCAATGCGCGCTGACAGGCGGAGAGGCGTGTGAGATCA 1979
Db 616 ACAGAGTGTGCGCTGTGCGCTTCAATGCGCGCTGAGTGTGACAGAGGCGTGTGAGATCA 557
Qy 1980 TCGCGAGCGCATGCTGCTGTGATGTGAGCCAGAGACGTGTGATGATCTGTGGGACCG 2039
Db 556 TCGCGAGCGGATGCTGCTGTGATGTGAGCCAGAGACGTGTGATGATCTGTGGGACCG 497
Qy 2040 GCGGCGCAAGCTGTGAGAGATGCTGTGCGGCACTTGTGAGCGGAGACCAAGAGTGTG 2099
Db 496 GCGGCGCGCAAGCTGTGAGAGATGCTGTGAGCACTTGTGAGCGGAGACCAAGAGTGTG 437
Qy 2100 GCGGCTGTGAGGATCTGTGCGGCTGTGCGGACCGGATCACGGCGGCGCGGACGCGC 2159
Db 436 GCGGCTGTGAGGATCTGTGCGGCTGTGCGGATCACGGCGGCGCGGACGCGC 377
Qy 2160 TCCTCATGCTCTCCCGTTTGAAGCCGTGTGAGCCGTGTGAAACGACTTTCAGCATGCTTACG 2219
Db 376 TGTGTGATGCTCTCCCGTTTGAAGCCGTGTGAGCCGTGTGAAACGACTTTCAGCATGCTTACG 317
Qy 2220 GCACCGTCTCCGCTGTGACGCGCTGTGCGGAGTGAAGGAGACCGGTGCGGCTTTCAGAC 2279
Db 316 GCACCGTCTCCGCTGTGACGCGCTGTGCGGAGTGAAGGAGACCGGTGCGGCTTTCAGAC 257
Qy 2280 CTTTCAACCACTCCGCGCTGTGGGTGACGTTTGAACCGCGCGGAGGCGCAAGCTGTATCG 2339
Db 256 CGTTTCAACGAGCGCGGCTGTGGGTGACGTTTGAACCGCGCGGAGGCGCAAGCTGTATCG 197
Qy 2340 AGGCGCTGTGGGCACTGCTTCCGACCTTACCGGAGCTTCAAGAGAGCTGTGAGGGGCTTCC 2399
Db 196 AGGCGCTGTGGGCACTGCTTCCGACCTTACCGGAGCTTCAAGAGAGCTGTGAGGGGCTTCC 137
Qy 2400 AGGAGCGCGGCAATGTGCAAGACTTCAAGTGTGAGGAGATGCGGCAAGCTTCAAGAGAG 2459
Db 136 AGGAGCGCGGCAATGTGCAAGACTTCAAGTGTGAGGAGATGCGGCGGCTTCAAGAGAG 77
Qy 2460 TCCTCTCAAGGCCAAGTACCACTGAGTGAAGCT 2493

Db 76 TCCTGTCAAGGCCAAGTACAGTGGTGAACCT 43

|||||

RESULT 7

US-09-345-214-15

; Sequence 15, Application US/09345214

; Patent No. 6392120

; GENERAL INFORMATION:

; APPLICANT: Lightner, Jonathan E.

; APPLICANT: Broglie, Karen E.

; TITLE OF INVENTION: MODIFICATION OF STARCH BIOSYNTHETIC ENZYME GENE

; TITLE OF INVENTION: EXPRESSION TO PRODUCE STARCHES IN GRAIN CROPS

; FILE REFERENCE: BR-1147

; CURRENT APPLICATION NUMBER: US/09/345,214

; CURRENT FILING DATE: 1999-06-30

; EARLIER APPLICATION NUMBER: 060/094,436

; EARLIER FILING DATE: 1998-07-28

; NUMBER OF SEQ ID NOS: 20

; SOFTWARE: Microsoft Office 97

; SEQ ID NO 15

; LENGTH: 2019

; TYPE: DNA

; ORGANISM: Zea mays

US-09-345-214-15

Query Match 43.8%; Score 1245.2; DB 3; Length 2019;

Best Local Similarity 84.5%; Pred. No. 4,6e-257;

Matches 1397; Conservative 2; Mismatches 255; Indels 0; Gaps 0;

Qy 840 CGCGCGCTGAGAGCCCGCTGTACAAGAGACCTTTGGGACTTCAAGAAATACATTGGCT 899

Db 109 CTCTCAAGTTGAGACCAATGATACAGAGAGCCACTTTGGGATTTCAAGAAATACATCGCTT 168

Qy 900 TCGAGAGCCCGTGGAGAGCCCAAGGATGATGGCTGGCTGTTCAGATGATGCGGCTCT 959

Db 169 TTGACGAGCTGAGAGAGAGAGATGATTCAGGGTGGTGAGATGATGCTGCTT 228

Qy 960 TTGAACATCACAGAACCAATGATTCGGACCTTTGGGAGGAGAGAACGTCAAGAACTGG 1019

Db 229 TTGAACATTTATGGGAGCAATGATTCGGGCTTTGGGCGGAGAAATGTTATGAACGTGA 288

Qy 1020 TCGTGGGCTGCTGAATGTTCTCCCTGTGTCAAAACAGGAGCTTGAAGATGGCCG 1079

Db 289 TCGTGGGCTGCTGAATGTTCTCCCTGTGTCAAAACAGGAGCTTGAAGATGGCCG 348

Qy 1080 GTGCTTGGCCCAAGGCTTTGGGAGAGAGAGACATCGTGTATGTTGTGTACCAAGT 1139

Db 349 GAGCTTACCAAGGCTTTAGCGAGAGAGAGACATCGTGTATGTTGTGTACCAAGT 408

Qy 1140 ATGGGAGCTATGAGAGAGCTTACGATGTCGAGTCCGAAAATACACAGGCTGTGAGC 1199

Db 409 ATGGGAGCTATGAGAGAGCTTGTGATATGGGAATCCGAAAATACACAGGCTGTGAGC 468

Qy 1200 AGGATATGAGAGAGATTTATTCATGCTTATATGATGAGTGGATTTGTGTCTATTG 1259

Db 469 AGGATATGAGAGAGATTTATTCATGCTTATATGATGAGTGGATTTGTGTCTATTG 528

Qy 1260 AGCTCTCTCTCTCCGACACCGCCAGAGAGACATTTATGGGAGGAGAGACAGAGAAATTA 1319

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Qy 1320 TGAAGCGCATGATTTTGTCTGCAAGGCGCGTGTGAGGTTCTTGGCAAGTTCTATGCG 1379

Db 589 TGAAGCGCATGATTTTGTCTGCAAGGCGCGTGTGAGGTTCTTGGCAAGTTCTATGCG 648

Qy 1380 GCGGTGTCCTTTATGGGAGTGAAGAACTGGGTTTATTTGCAAAATGATTTGGACACGCGAC 1439

Db 649 GT 708

Qy 1440 TCCTGCTGTCTATCTGAAAGCATATTACAGGAGCATGTTGATGACAGTACCTCGCT 1499

Db 709 TCCTGCTGTCTATCTGAAAGCATATTACAGGAGCATGTTGATGACAGTACCTCGCT 768

Qy 1500 CCATTATGTGATATCATTAATGCGGACCAAGAGGCGGTGGCCAGTAGATGAATTCCTCT 1559

Db 769 CCGTCTGTGATATCATTAATGCGGACCAAGAGGCGGTGGCCAGTAGATGAATTCCTCT 828

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Db 829 ACATGAGCTTGTGCTGAGACACTTACCTGGAACATTTCAAGCTGTAGAGACCCCGTGGGTG 888

Qy 1620 AGCAGGCCAATCTACTTGGCGCGCGCTGAAGATGAGCGAGCAAGTGTGTGTGTGAGCC 1679

Db 889 AGCAGGCCAATCTACTTGGCGCGCGCTGAAGATGAGCGAGCAAGTGTGTGTGTGAGCC 948

Qy 1680 CCGGCTACCTGTGGAGCTGAAGAGCGGTGAGAGGCGGTGGGCTTCAAGACATCTATAC 1739

Db 949 GCGGCTACCTGTGGAGCTGAAGAGCGGTGAGAGGCGGTGGGCTTCAAGACATCTATAC 1008

Qy 1740 GGCAGAAAGCATGGAAGAGCCGCGCATCTGTCAACGCGCATGACCAACATGAGAGTGAACC 1799

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Qy 1800 CCGAGTGAAGCTTCACTTCAAGTGGAGCGGCTTACCAACTTCTCTTGGAGACCTGG 1859

Db 1069 CCAAGTGAAGCTTCACTTCAAGTGGAGCGGCTTACCAACTTCTCTTGGAGACCTGG 1128

Qy 1860 ACTCCGCAAGCGGCAAGTGAAGAGGCGCTTGAAGCGGCGGAGCTGGGCTGAGTCCGCG 1919

Db 1129 ACGTGTGAAGCGGCAAGTGAAGAGGCGCTTGAAGCGGCGGAGCTGGGCTTGAAGTCCGCG 1188

Qy 1920 CCGAGTGAAGCTTCACTTCAAGTGGAGCGGCTTGAAGCGGCGGAGCTGGGCTGAGTCA 1979

Db 1189 ACGAGTGAAGCTTCACTTCAAGTGGAGCGGCTTGAAGCGGCGGAGCTGGGCTGAGTCA 1248

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Qy 1309 GCGGCGCAAGCTGTGAGAGAGATCTGTGGGACATTTCAAGCGGAGAGATTTCAAGAGTGGC 1368

Qy 2100 GCGGAGTGGTGGGAGTTCCTCGGCTGTGAGCGGAGCGGATCAAGCGGAGCGGAGCGG 2159

Db 1369 GCGGAGTGGTGGGAGTTCCTCGGCTGTGAGCGGAGCGGATCAAGCGGAGCGGAGCGG 1428

Qy 2160 TCCTCATGCTTCCCGGCTTGAAGCGGCTGTGAGCGGAGCGGATCAAGCGGAGCGGAGCGG 2219

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Qy 2220 GCACCGTCCCGGCTGTGAGCGGCTGTGAGCGGAGCGGATCAAGCGGAGCGGAGCGG 2279

Db 1489 GCACCGTCCCGGCTGTGAGCGGCTGTGAGCGGAGCGGATCAAGCGGAGCGGAGCGG 1548

Qy 2280 CTTTCAACCATCTCGGCTGTGAGCGGCTGTGAGCGGAGCGGATCAAGCGGAGCGGAGCGG 2339

Db 1549 CTTTCAACCATCTCGGCTGTGAGCGGCTGTGAGCGGAGCGGATCAAGCGGAGCGGAGCGG 1608

Qy 2340 AGGCGCTCGGAGCACTGCTTCCGACCTTACCGGAGCTTACAGAGAGCTGAGAGGAGCTCC 2399

Db 1609 AGGCGCTCGGAGCACTGCTTCCGACCTTACCGGAGCTTACAGAGAGCTGAGAGGAGCTCC 1668

Qy 2400 AGGAGCGCGGAGCTGTGAGAGAGCTTACAGAGAGCTTACAGAGAGCTTACAGAGAG 2459

Db 1669 AGGAGCGCGGAGCTGTGAGAGAGCTTACAGAGAGCTTACAGAGAGCTTACAGAGAG 1728

Qy 2460 TCCTCTCAAGGAGCAAGTACAGTGGTGAAGCGCT 2493

Db 1729 TCCTCTCAAGGAGCAAGTACAGTGGTGAAGCGCT 1762

RESULT 8

US-09-743-980-15

; Sequence 15, Application US/09743980

Patent No 6570008
GENERAL INFORMATION:
APPLICANT: E. I. du Pont de Nemours and Company
TITLE OF INVENTION: MODIFICATION OF STARCH BIOSYNTHETIC ENZYME GENER-
TITLE OF INVENTION: EXPRESSION TO PRODUCE STARCHES IN GRAIN CROPS
FILE REFERENCE: BB-1147-A
CURRENT APPLICATION NUMBER: US/09/743,980
CURRENT FILING DATE: 2001-05-14
PRIORITY APPLICATION NUMBER: 060/094,436
PRIORITY FILING DATE: 1998-07-28
NUMBER OF SEQ ID NOS: 20
SOFTWARE: Microsoft Office 97
SEQ ID NO 15
LENGTH: 2019
TYPE: DNA
ORGANISM: Zea mays
US-09-743-980-15

Query Match	43.8%	Score 1245.2;	DB 4;	Length 2019;
Best Local Similarity	84.5%	Pred. No. 4.6e-257;		
Matches 1397;	Conservative	2;	Mismatches 255;	Indels 0; Gaps 0;

OY	840	CGCGCCCTGACGCCCCCGCTGTACAGAAAGACCTTTGGGACCTTGAAGAAATACATTCGCT	893
Db	109	CTCTTACAGTTGAGGCATTATGATGACAGGAGGCCACTTGGAGATTTCAAGAAATACATCGGTT	168
OY	900	TCGAGAGACCCGCTGAGGCGCAAGATGATGAGCTGGGCTGTGGCAGATGATGGCGGCTCT	959
Db	169	TTGACGAGCCTGACGAGACGAAAGATGATTTCCAGGGTTGGTGCAGATGATGCTGGTTCTT	228
OY	960	TTGAACATCACCAGAACCATGATTTCCGACCTTTGGCAGGGGAGAACGTCAITGAACGTGG	1015
Db	229	TTGAACATTTATGGGGAGCAATGATTTCTGGGACTTTTGGCCGGGAGAAATGTATGAACGTGA	288
OY	1020	TCGTCGTGCGCTGTGAATGTTCTCCCTCGTGTGAATAACAGTGTCTTGGAGATGTTGCGG	1079
Db	289	TCGTGTGTGCTGTGAATGTTCTCCATGAGTGAATAACAGTGTCTTGGAGATGTTGCGG	348
OY	1080	GTGCTTTGCCCAAGGCTTTTGGCGAAGAGAGACATCGTGTATGCTTGTGGTACCAAGT	1139
Db	349	GAGCTTACCAGGCTTTTAGGGAAGAAAGACATCGTGTATGCTTGTGTGTACCAAGT	408
OY	1140	ATGGGAGCTATGAGGAAGCTTACGATGTGCGAGTCCGAATACTACAAAGCTGCTGAC	1199
Db	409	ATGGGAGCTATGATGAGAGCCCTTTGATATGGGAATCCGGAATACTACAAAGCTGCGAGAC	468
OY	1200	AGGATATGGAAGTGAATATTTCATGCTGTATATCGATGAGATTATTTGGTTCATTG	1259
Db	469	AGGACTTGAAGTGAATATTTCATGCTGTATATGATGAGATGCACTTTGTGTTCATTG	528
OY	1260	ACGCTCTCTCTTCCGACACCGCCAGGAAGACATTTATGGGGGACGACAGAAATTA	1319
Db	529	ATGCCCTCTTTTCCGGCACCGTCAAGATGACATATATGGGGAGTATGGCAGGAATCA	588
OY	1320	TGAACGCATGATTTTGTTCCTGCAAGCCGCTGTGAGGTTCTTGGCACGTTCCATGCG	1379
Db	589	TGAACGCATGATTTTGTTCCTGCAAGGTTGCTGTGAGGTTCTTGGCACGTTCCATGCG	648
OY	1380	GCGGTGCCCTTATATGGGGATGGAATCTGTGTTTATATGGAAATGATTGGCACAGGGAC	1439
Db	649	GTTGGTGTGTCTACGAGAGTGAATTTGTGTCTTATTCATTCACATATTTGGCACACTGCAC	708
OY	1440	TCCTCTCCTGTATCTGAAGCATATTACAGGACCATGTGTTTGATGCACTGACCTCGT	1499
Db	709	TCTCTCCTGTATATCTGAAGCATATTACAGACACATGGGTTATATGCACTGACCTCGT	768
OY	1500	CCATTATGGTATACATAACATCGCGCACAGAGGCGTGGCCCACTAATGAATTCGGT	1559
Db	769	CCGTCTCCTGTATACATAACATCGGCCACAGAGGCGTGGTCTGTATGAATGATTCGGT	828
OY	1560	TCACCGAGTTGCTGTGACACTTCTGGAACACTTCAAGCTGTACGACCCCTGTGGTGGTG	1619
Db	829	ACATGGACTTGTGCTTAACACTTACTTTCACATTTTGAGCTGTACGATCCCTGTGGTGGC	888

QY	1620	AGCAAGCCAACTACTTGGCCGCGCGGACCTGAAAGATGGGGGACACCAAGTGTGCTGGGAGCC	1679
Db	889	AGCAAGCCAAATCTTTGCCCCGGGCTCTGAAGAATGGACACCGGGGTGACTGTCAAGC	948
QY	1680	CCGGGATACCTGTGGAGAGCTCAAGAAGGTGAAGGGCGGCTGGGGGCTTTCAGACATCATAC	1739
Db	949	GCGGCTACTGTGGGAGCTGAAGAAGTGAAGAGCGGCTGGGGGCTCTCAACATCATATCC	1008
QY	1740	GGCAGAACGATTTGGAAGACCCGCGGCAATTCGTCAACGGCATTCGACAACTAGAGTGAACCC	1799
Db	1009	GTTCTAACGACTTGAAGTAAGTCAATGACATGCAACGGATATGACACCAACGAAGTGAACCC	1068
QY	1800	CCGAGGTGAGAGTCCACCTCAAGTCGAGACGGCTACACCAATTTCTCCCTGGGGAGCTTGG	1858
Db	1069	CCAAAGTGAAGTGCACCTGGCGGTTCGACCGGCTTACACCAATTAATCTCCCTCGAACAATCG	1128
QY	1860	ACTCCGCGAAGCGGCAATGTCAAAGAGGACCTTGCACCGGAGCTGGGCTTCAGAGTTCGGC	1919
Db	1129	ACGCTGGAAGACGGGCAATGTCAAAGGCGGCGCTTCGACGGGAGACTGGGCTCTGAAGTGCCTG	1188
QY	1920	CCGACGTGCGCTGTGGGCTTCAATTCGGCGCGCTCGAGACGGGACAGAGGGGCGTGAAGATCA	1979
Db	1189	ACGAGATGTCGCGCTGTGCGCTTCAATTCGGGCTCTGGATGACAAAGGGCTGGAATCA	1248
QY	1980	TCGGGAGCGCCATGCGCTTGATTCGTGAAGCCAGAAGTGCAGCTGTGTCAATGCTGGGACCG	2039
Db	1249	TCGGGAGCGCGATGCGCTGATTCGCGGGGCGAGAGCTGCAGATGTGTGATGCTGGGACCG	1308
QY	2040	GCGCGCAACGACTGGAAGGCAATGCTGGCGGCACTTCGAGCGGGAGCACACAGCAAAAGTGC	2099
Db	1309	GAGCGCGCGACTTGAAGCAATGTCTGACAGCACTTGAAGCGGAGAGCATCCCAACAAAGTGC	1368
QY	2100	GCGGATGGGTGAGGATTTCTCCGTGGCGCTTGCAGCACCGGATATCAGCGGGGCGCCGACGCGC	2158
Db	1369	GCGGATGGGTGAGGATTTCTCCGTGGCGCTTGCAGCACCGGATATCAGCGGGGCGCCGACGCGC	1428
QY	2160	TCCTCATGECCTCCCGGTTTGCAGCCGCTGGGGTTGAACCAAGCTTTACGCCATGCGCTTACG	2219
Db	1429	TGCGATGATCCCTCCCGCTTTCAGAGCCCTGCGGGCTGAACCAAGCTTTACGCCATGCGCTTACG	1488
QY	2220	GCACCGTATCCCGTGGTGCAGCGCCGTCGGCGGGGTGAAGGAGCAACGCTGCGCGCTTCGACC	2279
Db	1489	GCACCGTATCCCTGTGTGTGCAGCGCCGTCGGGGCGGGCTTCAGGAGAACCTGTGGCGCGCTTCGACC	1548
QY	2280	CCTTCAACCACTCCGGCCTTCGGGTGAGCGTTTCGACCGCGCCGAGGCGCAACAGCTGATCG	2339
Db	1549	CGTTTCAGGAGCGCGGGCTTCGGGTGAGCTTTTTCGACCGTGCAGAGGCCAAACAGCTGATCG	1608
QY	2340	AGGCGTTCGGGCACTGCTCCGCACTACCGGGAGCTTCAAGAGAGAGCTGAGGGGCTTCG	2399
Db	1609	AGGCGCTTAGGCACTGCTCCGCACTACCGGAACTTCAAGAGAGAGCTGAGGAAGTCTTC	1668
QY	2400	AGGAGCGCGGAGTGTGCGAGGACTTTCAGCTGGGAGCATGCCCAAGCTCTTACGAGAGCG	2458
Db	1669	AGGCGCGCGGAGTGTGCGAGGACTTTCAGCTGGGAGCATGCCCAAGCTCTTACGAGAGCG	1728
QY	2460	TCCTTCCTAAAGCCAAATGTAACCAATGTGTGAACGCT	2493
Db	1729	TCCTTCCTAAAGCCAAATGTAACCAATGTGTGAACCTT	1762

RESULT 9
US-08-941-445A-8
Sequence 8, Application US/08941445A
Patent No. 6107060
GENERAL INFORMATION:
APPLICANT: Keeling, Peter
APPLICANT: Guan, Haining
TITLE OF INVENTION: Search Encapsulation
NUMBER OF SEQUENCES: 37
CORRESPONDENCE ADDRESSES:
ADDRESSSEE: Greenlee, Winner and Sullivan, P.C.

STREET: 5370 Manhattan Circle
City: Boulder
STATE: CO
COUNTRY: US
ZIP: 80303
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/941,445A
FILING DATE: 30-SEP-1997
CLASSIFICATION: 800
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/026,855
FILING DATE: 30-SEP-1996
ATTORNEY/AGENT INFORMATION:
NAME: Miner, Ellen P
REGISTRATION NUMBER: 28,547
REFERENCE/DOCKET NUMBER: 89-97
TELEPHONE: (303) 499-8080
TELEFAX: (303) 499-8089
INFORMATION FOR SEQ ID NO: 8:
SEQUENCE CHARACTERISTICS:
LENGTH: 2007 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
TOPOLOGY: not relevant
MOLECULE TYPE: cDNA to mRNA
HYPOTHETICAL: NO
ORIGINAL SOURCE:
ORGANISM: Zea mays
FEATURE:
NAME/KEY: CDS
LOCATION: 1..2007
US-08-941-445A-8
Query Match 38.9%; Score 1104.6; DB 3; Length 2007;
Best Local Similarity 81.7%; Pred. No. 5.9e-227;
Matches 1340; Conservative 0; Mismatches 289; Indels 12; Gaps 5;

QY 840 CGCGGCTGAGAGCCCGCTGTACAAGAACCTTTGGGACTTCAGAAATACATTGGCT 899
DB 374 CTCCTACAGTTGACCATTAAGTACAGAGGCACTTGGGATTCAGAAATACATTGGCT 433
QY 900 TCGAGAGCCCGTGAAGGCGCAAGATGATGGCTGGGCTGTTGAGATGATGGGCGCTCT 959
DB 434 TTGACGAGCTGACGAGCGAAGATGATTCAGGGGTTGGTGCATGATGCTGCTTTCTT 493
QY 960 TTGACATCAACCAACCATGATTCGAGACTTTGGGAGGAGAAAGTATGAAGCTG 1019
DB 494 TTGACATCAATGATTCGAGCTTTG--TTGGAGAAATGTTATGAAGTGA 550
QY 1020 TCGTCTGCTGCTGATGATGTTCTCCCTGCTGCAAAACAGGTGCTTTGAGATGTTGCCG 1079
DB 551 TCGTCTGCTGCTGATGATGTTCTCCCTGCTGCAAAACAGGTGCTTTGAGATGTTGCCG 610
QY 1080 GTGCTTTGCCAAGGCTTTGGGAGAGAGACATGCTGTTATGTTGTTGTTGCAAGGT 1139
DB 611 GAGCTTTACCAAGGCTTTAGCAGAGAGAGACATGCTGTTATGTTGTTGTTGCAAGGT 670
QY 1140 ATGGGAGCTATGAGAGAGCTTACGATGTCGAGTCCGAAATACCTACAGAGCTGTGAC 1199
DB 671 ATGGGAGCTATGAGAGAGCTTATGATATGGAATCCGAAATACCTACAGAGCTGTGAC 730
QY 1200 AGGATATGAGAGAGATATATTTCCATGCTTATATCGATGAGTTGATTTGTTGTTGTTG 1259
DB 731 AGGATATGAGAGAGATATATTTCCATGCTTATATCGATGAGTTGATTTGTTGTTGTTG 790
QY 1260 AGCTCTCTCTCTCCGACACCGCCAGAGAGACATTTATGGGGGAGAGACAGAAATTA 1319

DB 791 ATGCTCTCT--TTCCGACCGCTCAAGATGACATATATGAGGAGATGAGCAAGAAATCA 847
QY 1320 TGAAGCCGATGATTTGTTCTGCAAGGCCGCTGTCAGAGTTCTTTGGCAGTTCCATGCG 1379
DB 848 TGAAGCCGATGATTTGTTCTGCAAGGCCGCTGTCAGAGTTCTTTGGCAGTTCCATGCG 907
QY 1380 GCGGTGCTCTTATGAGGATGAAATCTGTTTATTTGCAAAATGATTTGGCAGCAGCGCAC 1439
DB 908 GTGCTGTGCTGCTGAGATGAAATTTGTTGTTTCTTCCATGCAATTTGGCAGCTGAC 967
QY 1440 TCTGCTGCTGCTATGTAAGATATTTACAGGACATGTTGATGACAGTACCTGCT 1499
DB 968 TCTGCTGCTGCTATGTAAGATATTTACAGGACATGTTGATGACAGTACCTGCT 1027
QY 1500 CCATATGATGATATCATATATGCGGACCAAGGCGCTGGCCAGTATGATGATTTCCCGT 1559
DB 1028 CCGTCTCTGCTATATCATATATGCGGACCAAGGCGCTGGCTGCTATATGATTTCCCGT 1087
QY 1560 TCAAGGAGTGGCTGAGCACTACCTGGAACATTTCAAGCTGTAGACCCCGGTGGTGTG 1619
DB 1088 ACATGGACTTGTGAAACATTAACCTTTCACATTTTCAAGCTGTAGATCCGTGGTGGC 1147
QY 1620 AGCAGCGCACTACTTCCGCGC--CGGCTGAAATGCGGACCAAGTGTGCTGTGA 1676
DB 1148 AGCAGCGCACTACTTCCGCGCTGTGTTCTGAAGATGCGGACCGGTGTGCTGTCA 1207
QY 1677 GCGCGGCTGCTGTGTGAGCTCAAGCGGTGAGGCGGCTGTGGGCTTCAAGCATCA 1736
DB 1208 GCGCGGCTGCTGTGTGAGCTCAAGCGGTGAGGCGGCTGTGGGCTTCAAGCATCA 1267
QY 1737 TACGCGAAGACGCTGGAAGACCGGCGCATCTCAACCGGACATCAATGAGAGTGA 1796
DB 1268 TCGCTTCAACGCTGGAAGATCAATGCAATTCGTGAACGATCAACACAGAGTGA 1327
QY 1797 ACCCGAGGTGAGCTGCACTCAAGTCCGACCGGCTTACCACTTCTCCCTGGGACGC 1856
DB 1328 ACCCGAGGTGAGCTGCACTCAAGTCCGACCGGCTTACCACTTCTCCCTGGGACGC 1387
QY 1857 TGAATTCGCGCAAGCGGACGCTGCAAGGCGCTTGAAGCGGAGCTGTGGCTTCAGAGTCC 1916
DB 1388 TGAATTCGCGCAAGCGGACGCTGCAAGGCGCTTGAAGCGGAGCTGTGGCTTCAGAGTCC 1447
QY 1917 GCGCGACGCTGCGCTGCTGCTTCAAGCGGCGGCTGCAAGGCGGCTGAG 1976
DB 1448 GCGCGACGCTGCGCTGCTGCTTCAAGCGGCGGCTGCAAGGCGGCTGAG 1507
QY 1977 TCAATCGGACGCGCATGCGCTGATGATGAGCCAGGACGCTGATGATGCTGGCA 2036
DB 1508 TCAATCGGACGCGCATGCGCTGATGATGAGCCAGGACGCTGATGATGCTGGCA 1567
QY 2037 CCGGCGGCAAGCACTGGAAGAGCATCTGCGGCACTTGAAGCGGAGCACAGACAGCAAG 2096
DB 1568 CCGGCGGCAAGCACTGGAAGAGCATCTGCGGCACTTGAAGCGGAGCACAGACAGCAAG 1627
QY 2097 TGGCGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 2156
DB 1628 TGGCGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 1687
QY 2157 CGCTCTCATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 2216
DB 1688 TGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 1744
QY 2217 ACAGGACGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 2276
DB 1745 ACAGGACGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 1804
QY 2277 ACCCTTCAACCACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 2336
DB 1805 ACCCTTCAACCACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 1864
QY 2337 TCGAGGCGCTGCGGACGCTGCTGCGCACTACCGGAGCTTACAGAGAGCTGAGGAGGCG 2396
DB 1865 TCGAGGCGCTGCGGACGCTGCTGCGCACTACCGGAGCTTACAGAGAGCTGAGAGAGT 1924

QY 2037 CCGGCGCGCAGACTGAGAGACTTGCTGCGGCACTTGAGCGGAGACCAACGACAGG 2096
Db 1383 CCGGCCACCTGACCTGAAAGAAAGTCTGAGAGCGGAGATCCAAAGG 1442
QY 2097 TGGCGGGGTGGGTGGGTCTCCGTGCGCCTGAGCGCAACCGGATCACGGCGCGCCGACG 2156
Db 1443 TGGCGGGGTGGGTGGGTCTCCGTGCGCCTGAGCGCAACCGGATCACGGCGCGCCGACG 1502
QY 2157 CGCTCTCATGCTCTCCCGGTGAGCGGTGCGGTTGAACCACTTACCGCATGCGCT 2216
Db 1503 TGGTGTGATGCTCTCCCGGTGAGCGGTGCGGTTGAACCACTTACCGCATGCGCT 1559
QY 2217 ACCGCAACCGTCTCCCGGTGAGCGGTGCGGTTGAACCACTTACCGCATGCGCT 2276
Db 1560 ACCGCAACCGTCTCCCGGTGAGCGGTGCGGTTGAACCACTTACCGCATGCGCT 1619
QY 2277 ACCGCAACCGTCTCCCGGTGAGCGGTGCGGTTGAACCACTTACCGCATGCGCT 2336
Db 1620 ACCGCAACCGTCTCCCGGTGAGCGGTGCGGTTGAACCACTTACCGCATGCGCT 1679
QY 2337 TCGAGCGCTCGGCGCTGCTCTCGCACTTACCGGGACTTACAGAGAGCTGAGGCGC 2396
Db 1680 TCGAGCGCTCGGCGCTGCTCTCGCACTTACCGGGACTTACAGAGAGCTGAGGCGC 1739
QY 2397 TCGAGCGCTCGGCGCTGCTCTCGCACTTACCGGGACTTACAGAGAGCTGAGGCGC 2456
Db 1740 TCGAGCGCTCGGCGCTGCTCTCGCACTTACCGGGACTTACAGAGAGCTGAGGCGC 1799
QY 2457 ACCTCTCTCTCAAGCGCAAGT 2477
Db 1800 ACCTCTCTCTCAAGCGCAAGT 1820

RESULT 11

US-08-941-445A-10
Sequence 10, Application US/08941445A
Patent No. 6107060

GENERAL INFORMATION:

APPLICANT: Keeling, Peter
APPLICANT: Guan, Hanning
TITLE OF INVENTION: Search Encapsulation
NUMBER OF SEQUENCES: 37

CORRESPONDENCE ADDRESSES:

ADDRESSEE: Greenlee, Winner and Sullivan, P.C.
STREET: 5370 Manhattan Circle
City: Boulder

STATE: CO

COUNTRY: US

ZIP: 80303

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: PatentIn Release #1.0, Version #1.30

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/941.445A

CLASSIFICATION: 800

PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 60/026,855

FILING DATE: 30-SEP-1996

ATTORNEY/AGENT INFORMATION:

NAME: Winner, Ellen P

REGISTRATION NUMBER: 28,547

REFERENCE/DOCKET NUMBER: 89-97

TELEPHONE: (303) 499-8080

TELEFAX: (303) 499-8089

INFORMATION FOR SEQ ID NO: 10:

SEQUENCE CHARACTERISTICS:

LENGTH: 2097 base pairs

TYPE: nucleic acid

STRANDEDNESS: double
TOPOLOGY: not relevant
MOLECULE TYPE: cDNA to mRNA
HYPOTHETICAL: NO
ORIGINAL SOURCE:
ORGANISM: Zee mayb
FEATURE:
NAME/KEY: CDS
LOCATION: 1..2097
US-08-941-445A-10

Query Match 36.9%; Score 1047.6; DB 3; Length 2097;
Best Local Similarity 78.7%; Pred. No. 9.6e-215;
Matches 1264; Conservative 0; Mismatches 339; Indels 3; Gaps 1;

QY 886 GAAATACATTTGGCTTCGAGAGACCCGTGAGGCCAAGATGATGCTGGCTTTGACA 945
Db 492 GAAATACATTTGGCTTCGAGAGACCCGTGAGGCCAAGATGATGCTGGCTTTGACA 551
QY 946 TGATGCGG---GCTCTTTGAATCATCACCAACATGATTCGCGACCTTTGGAGGGA 1002
Db 552 TGGCGCGCGAGTGTCTCTTATGACAGGAGATTAATGAACCTGGCTTTGGCTGGCC 611
QY 1003 GAACGTATGAAAGTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1062
Db 612 TAAATGATGAACGTGTCTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 671
QY 1063 TCTTGAAGATGTGCGCGCTCTTTGCGCAAGCTTTGGCGAAGAGAGACATCGTTAT 1122
Db 672 CTTGAGAGATGT 731
QY 1123 GGT 1182
Db 732 GGT 791
QY 1183 CTACAGGCTGT 1242
Db 792 TTACAGGCTGT 851
QY 1243 TGAATTTGT 1302
Db 852 TGAATTTGT 911
QY 1303 CAGCAGACAGAAATTATGAAGCGCATGATTTTGTGTGTGTGTGTGTGTGTGTGTGT 1362
Db 912 AGAAAGATTGAAATTATGAAGCGCATGATTTTGTGTGTGTGTGTGTGTGTGTGTGT 971
QY 1363 TTGGCAAGTTCATGCGCGCGGTGTCCCTTATGGGATGAAATCTGTGTGTGTGTGTGT 1422
Db 972 ATGGTATGTCTCATGTGCGCGGTGTCCCTTATGGGATGAAATCTGTGTGTGTGTGTGT 1031
QY 1423 TGAATTTGT 1482
Db 1032 TGAATTTGT 1091
QY 1483 GATGCAATACCTGT 1542
Db 1092 GATGCAATACCTGT 1151
QY 1543 AGTATGATGATTTCCGTTTACCGAGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 1602
Db 1152 TGTATGATGATTTCCGTTTACCGAGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 1211
QY 1603 CGAAGCGGT 1662
Db 1212 TGAATTTGT 1271
QY 1663 GGT 1722
Db 1272 GGT 1331
QY 1723 GCTTACGATCATACGCGAAGACCTGGAAGACCCGCGGATGTCTCAACGCGATCGA 1782

Db 1332 CCTCCACGACATCATTAACGAGAACGACTGGAGGCGATCGTGAACGCGATCGA 1391
Qy 1783 CAACATGAGAGTGAACCCCGAGGTGAGACGTCCACCTCAAGTCGAGCGGCTACCACTT 1842
Db 1392 CATGAGGAGTGAACCCCGGTGAGACGTGAGACCTCCACTCCGACGATCAACCACTA 1451
Qy 1843 CTCCCTGGGAGACCTGGAACCTCCGGGAGCGGAGTGGCAGAGGCGCTGACGCGGAGCT 1902
Db 1452 CACCTTCAGAGACGTGGACACCGGAGCGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 1511
Qy 1903 GGGCGCTGAGGTCCGCGCGGAGCGTGGCGCTGCGGCTTCAATCGGCGCGCTGAGAGGAG 1962
Db 1512 GGGCGCTGAGGTCCGCGCGGAGCGTGGCGCTTCAATCGGCGCGCTGAGAGGAG 1571
Qy 1963 GAAGGCGGTGAGATCATCGGAGCGGAGCGGAGCGGAGCGGAGCGGAGCGGAGCGGAG 2022
Db 1572 GAAGGCGGTGAGATCATCGGAGCGGAGCGGAGCGGAGCGGAGCGGAGCGGAGCGGAG 1631
Qy 2023 GGTATGCTGGGAGACCGGCGCGGAGCGGAGCGGAGCGGAGCGGAGCGGAGCGGAG 2082
Db 1632 GGTATGCTGGGAGACCGGCGCGGAGCGGAGCGGAGCGGAGCGGAGCGGAGCGGAG 1691
Qy 2083 GCACACGAGCAAGGAGCGGCGGAGCGGAGCGGAGCGGAGCGGAGCGGAGCGGAGCGGAG 2142
Db 1692 GCACACGAGCAAGGAGCGGCGGAGCGGAGCGGAGCGGAGCGGAGCGGAGCGGAGCG 1751
Qy 2143 GCGCGGCGCGGAGCGGCGGAGCGGAGCGGAGCGGAGCGGAGCGGAGCGGAGCGGAG 2202
Db 1752 GCGCGGCGCGGAGCGGCGGAGCGGAGCGGAGCGGAGCGGAGCGGAGCGGAGCGGAG 1811
Qy 2203 TTACGCGATGCGCTTACGCGGAGCGGAGCGGAGCGGAGCGGAGCGGAGCGGAGCGG 2262
Db 1812 CTACGCGATGCGCTTACGCGGAGCGGAGCGGAGCGGAGCGGAGCGGAGCGGAGCGG 1871
Qy 2263 CGTCCGCGGCTTACGCGGAGCGGAGCGGAGCGGAGCGGAGCGGAGCGGAGCGGAGCG 2322
Db 1872 GGTGCGCGGCTTACGCGGAGCGGAGCGGAGCGGAGCGGAGCGGAGCGGAGCGGAGCG 1931
Qy 2323 GCGCGACAGGCTTACGAGCGGCTCGGAGCGGAGCGGAGCGGAGCGGAGCGGAGCGG 2382
Db 1932 GCGCGACAGGCTTACGAGCGGCTCGGAGCGGAGCGGAGCGGAGCGGAGCGGAGCGG 1991
Qy 2383 GAGCTGAGGCGGCTTACGAGCGGCGGAGCGGAGCGGAGCGGAGCGGAGCGGAGCGG 2442
Db 1992 GAGCTGAGGCGGCTTACGAGCGGCGGAGCGGAGCGGAGCGGAGCGGAGCGGAGCGG 2051
Qy 2443 CAAGCTTACGAGGAGCGGCTTACGAGCGGCGGAGCGGAGCGGAGCGGAGCGGAGCGG 2488
Db 2052 CGTCTGTATGAGGAGCGGCTTACGAGCGGCGGAGCGGAGCGGAGCGGAGCGGAGCGG 2097

RESULT 12
US-08-572-951-3

Sequence 3, Application US/08572951
Patent No. 5824790
GENERAL INFORMATION:
APPLICANT: KEELING, PETER L.
APPLICANT: KNIGHT, MARY E.
APPLICANT: GUAN, HANPING
TITLE OF INVENTION: MODIFICATION OF STARCH
TITLE OF INVENTION: SYNTHESIS IN PLANTS
NUMBER OF SEQUENCES: 41
CORRESPONDENCE ADDRESS:
ADDRESSEE: CUSHMAN DARBY & CUSHMAN
ADDRESSEE: Intellectual Property Group of
ADDRESSEE: Pillsbury Madison & Sutro LLP
STREET: 1100 New York Avenue, N.W.
CITY: Washington
STATE: DC
COUNTRY: USA
ZIP: 20005-3918
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/572,951
FILING DATE: 15-DEC-1995
CLASSIFICATION: 800
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/263,921
FILING DATE: 21-JUN-1994
CLASSIFICATION: 800
ATTORNEY/AGENT INFORMATION:
NAME: Paul N. Kokulis
REGISTRATION NUMBER: 16,773
REFERENCE/DOCKET NUMBER: 222957/1.02.15C
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 861-3000
TELEFAX: (202) 822-0944
INFORMATION FOR SRO ID NO: 3
SEQUENCE CHARACTERISTICS:
LENGTH: 2380 base pairs
TYPE: nucleic acid
STRANDEDNESS: both
TOPOLOGY: linear
MOLECULE TYPE: cDNA
US-08-572-951-3

Query Match 32.1%; Score 912.2; DB 1; Length 2380;
Best Local Similarity 53.4%; Pred. No. 1e-185;
Matches 858; Conservative 291; Mismatches 454; Indels 3; Gaps 1;

Qy 888 AATACATGCTGCTTGAAGAGCGGCTGAGGCGCAAGATGATGCTGGGCTGTTCAAGATG 947
Db 551 ARMSNATHGNAATGCGAGCGGAGCGGAGCGGAGCGGAGCGGAGCGGAGCGGAGCGG 610
Qy 948 ATGCGGCGCTTGAACATCAC--AGAACCATGATTCGCGGCTTGGCAGGGAGG 1004
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Qy 1005 ACGTCATGAACGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1064
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Qy 1305 GCGAGCAGGAATATGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 1364
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Qy 1365 GGCAGCTTCATGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 1424
Db 1031 GGTAYGCGGCTGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 1090
Qy 1425 ATTGACACGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 1484

1091 AYTGGCAVACNCGNTYNTYNTNCNGTNTAYTNAARGNTAYTAMNGAAYAGNYTNA 1150
1485 TGGAGTACACTCGGTCATTTATGTGATACATACATCGCCACAGGCGCGTCCAG 1544
1151 TGCARTYAGCMGWSGNTYNTNTNATHCAVAAVATHGNCACARAGNNGNCGCNG 1210
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1811 CNGNGCNGAYATHTYNTYNTATGCMNSMNGTTYGARCNTYGGNYTNAAYCAR 1870
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2111 TTYTNTAYAGARAGTNTGTNARAGNARTAYCAATGSTRGC 2156

Sequence 25, Application US/09388743
Patent No. 642386
GENERAL INFORMATION:
APPLICANT: Singletary, George
APPLICANT: Zhou, Ian
TITLE OF INVENTION: No. 642386e1 Starch Synthase Polynucleotides and Their
FILE REFERENCE: 1144
CURRENT APPLICATION NUMBER: US/09/388,743
CURRENT FILING DATE: 1999-09-02
NUMBER OF SEQ ID NOS: 28
SOFTWARE: FastSeq for Windows Version 3.0
SEQ ID NO 25
LENGTH: 2418
TYPE: DNA
ORGANISM: *Typha latifolia*
FEATURES:
NAME/KEY: CDS
LOCATION: (1)...(2418)
US-09-388-743-25

Query Match 28.4%; Score 806.6; DB 3; Length 2418;
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1152 AGGAGGCTACAGATGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1211
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1298 TTTTGTCTGCTGAG 1357

Qy	1692	GGGAGCTCAAAACGGTGGAGGGGCGCTGGGGGGCTTACGACATCCTAACGGGAAACGACT	1751
Db	1358	GGGAGCTGAAAACATCAGAAGGTGGTGGGGCTTACATGAAATTATTAATGAACTA	1417
Qy	1752	GGAAAGACCCGGGGCATCGTCAACCGGCATTCGACAAATGAGTGGAAACCCGAGGTGACG	1811
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Qy	1812	TCCACTCAAGTCGGACGGCTTACACCAACTTCTCCCTGGGGACGTGCACTCCGGCAAGC	1871
Db	1478	TGCACCTTAATTCGATGGATGATACAAATTTATTTCTGTGATATCTTTAAGATGAGGTAAAC	1537
Qy	1872	GGCAGTGAAGAAGAGCCCTGCAAGCGCGGACGTGGGCTGACAGTCCGGCCGACGCGCGC	1937
Db	1538	CAGTATGTAAAGCTGCTTTTGGACGCAAGGTGCGTGGCTGTTGTGATATATGATACCA	1597
Qy	1932	TGCTCGGCTTATCGGCGCGCTTGGACCGGACGAGAGGGGCGTGGAGATTCATCCGACGCA	1991
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Qy	1992	TGCCCTGGATCGTGAAGCCAGGACGTGACGTGGTCACTGTGGGACCGGCGCGCACGAC	2051
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Qy	2232	TCTGTGACAGCCGTGGCGGGGTGAGGAGACCCGTGCCCGCTTCGACCCCTTCAACCACT	2291
Db	1898	TGGTGCAATGCTGTGGGGGCGCTTAAAGATTAACGATGACTCAATTTGATCTTTTCAACGAGT	1957
Qy	2292	CCGGCTTGGGGTGAAGCTTTCGACCGCGCGGAGGCGCACAAAGCTGATTCGAGGCGCTCGGAC	2351
Db	1958	CTGGTCTTGTGTGACCTTTCGACAGGGGACAGAGGAGAAAGTGTATTCATGATTTGAATTA	2017
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US-10-044-543-25			
Sequence 25, Application US/10044543			
Patent No. 6734341			
GENERAL INFORMATION:			
APPLICANT: Singletary, George			
APPLICANT: Zhou, Ian			
TITLE OF INVENTION: and Their Use in the Production of New Starches			
FILE REFERENCE: 1144D			
CURRENT APPLICATION NUMBER: US/10/044,543			
CURRENT FILING DATE: 2002-01-11			
PRIOR APPLICATION NUMBER: 09/386,743			
PRIOR FILING DATE: 1999-09-02			
NUMBER OF SEQ ID NOS: 28			
SOFTWARE: FastSeq for Windows Version 3.0			

[illegible]

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Oy	1932	TGCTTCGGCTTCATCCGCGCCGCTTGCAGCGGAGCAAGAGGGCTGGAGATTCATCCGCGACGCCA	199D
Db	1598	TCATTTCAGTTCATTCGTGAAGGTTTAGACCAACACGAAAGGGGTGGATCTCATTTGCCAGGCGCA	1657
Oy	1992	TGCCCTGGATCCTGAGCCAGGACGTTGCAGCTGTGTATCTGTGGGCAACGGCGCGCACGACC	2051
Db	1658	TGCCTTGAATGTCTAGTCATGATGTTCGAAGTAGTCATGTTCATGTTCATGTTCATGTTCATGTTC	1717
Oy	2052	TGGAGAGCATGTCTGGGCGACTTCGAGCGGGAGCACACAGACAAAGGTGGCGGGGTGGCGTG	2111
Db	1718	TTGAAATAATTTACTGTGAGAACTTTGAGGGTCAACACAGGAGACAAAGTAAAGCATGGAGTTTG	1777
Oy	2112	GGTTCCTCCGTGCGCTTCGCGCACCCGATCACCGCGGGGCGCGACGCGCTCTCTCATGCGCT	2171
Db	1778	CATTTCAGTAAAGATGGCGGCAATGAATTAACGACAGGTGCGGACATCCTCATATGATGCTT	1837
Oy	2172	CCCGGTTGAGCCGCTGCGGGTTGAACCAAGCTTTACGCCATGGCCTAACGCAACCGTCCCG	2231
Db	1838	CGAGGTTTGAGCCAGCGGATTTGAACCAAGCTTTAGCAATGATATGAACCAATTCAG	1897
Oy	2232	TGCTGCACGCGCTGCGCGGGGAGAGGACACCGTGCAGCGCGCTTCGACCCCTTCAACCACT	229D
Db	1898	TGTGTCAATGCTGTTGGGAGCCTTGAAGATACAGTACATCAATTTGATCTTTCAACGAGT	1957
Oy	2292	CCGGGCTCGGGTGAAGCTTTCGACCGCGCCGAGGCGCACAAAGCTGATTCAGGCGGCTCGGGC	2351
Db	1958	CTGGTCTTGTTGGTGGACCTTCGACAGGGGACAGAGGACGAGAACTGATTCATCATTTGAATA	2017
Oy	2352	ACTGCTCCGCACTTACCGGAGCTTACAGAGAGCTGAGGGGCTCCAGAGAGCGGCGCA	2411
Db	2018	ACTGTTTAATACATCACTGGAATTAACAGGACAGTTGAAAGGCTTTCMAAACAGAGGGA	2077
Oy	2412	TGTGCGAGGACTTCAGCTGGGAGCATGCGGCAAGCTTACAGAGAGCTGCTCCCTCAAG	2471
Db	2078	TGATGCAAGATCTTAGCTGGGATATGCTGCTCAGCAATACAGAGATGCTCTTGTGGAG	2137
Oy	2472	CCAAGTACCAGTGGTGA	2488
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RESULT 15			
US-09-388-743-5			
/ Sequence 5, Application US/09388743			
/ Patent No. 6423886			
/ GENERAL INFORMATION:			
/ APPLICANT: Singletary, George			
/ APPLICANT: Zhou, Lan			
/ TITLE OF INVENTION: No. 6423886el Starch Synthase Polynucleotides and Their			
/ FILE REFERENCE: 1144			
/ CURRENT APPLICATION NUMBER: US/09/388, 743			
/ NUMBER OF SEQ ID NOS: 28			
/ SOFTWARE: FastSeq for Windows Version 3.0			
/ SEQ ID NO 5			
/ LENGTH: 2348			
/ TYPE: DNA			
/ ORGANISM: Curcuma zedoaria			
/ FEATURE:			
/ NAME/KEY: CDS			
/ LOCATION: (36) ... (2105)			
/ US-09-388-743-5			

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Qy	1034	GAATTTCTCCCTGTGTGCAAAAACAGTGTCTTTGAGAATGTTCGCGTCTTGGCCAAAG	1093
Db	654	GAATGTGCACCATGTCTTAAACAGGTGGGCTTGGAGATGTTGTTGGAGCTTTAACTAAA	713
Qy	1094	GCTTTGGCGAAGAGAGACATGTGTATTAGTTGTGTATCCAAAGTATGGGACATATAG	1155
Db	714	GCATTGGCCCAAGAGAGGACATGTGTCTATGTAGTGTCTCCAAAGATATAGAAATCTATCT	773
Qy	1154	GAAGCTACGATGTGCGATCCGAATAATCAAGGCTGCTGCAAGATATAGAAATG	1213
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Qy	1214	AATTAATTCACATGCTTATATCATGTGAGATGATTTTGTTCATTTGACGCTCTCTTC	1273
Db	834	AAATATCTATCACTTACATGATTCGTGTATTTTGTCTTCATGTGATAGTCTTATTTTC	893
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Db	894	CGCCATATTGGAATAGATATATATGTGTGAACCGAGTGACATTTGAAGAAATGTGA	953
Qy	1334	TTGTTCTGCAAGCCGCTGTGAGGTTCTTTGCAAGTTCCATGTGGCGGTGTCCCTTAT	1393
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Qy	1514	CATAACATCGGCACACGAGCCGTGGCCCAGTATGAAATTCCTCGTTACCGAGTTGCT	1573
Db	1134	CACACATATGACATCAAGGCTGTGTGTCCGTAGATGCTTCTCATATGTGAAATTTTGCA	1193
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Db	1494	CAGTGCAGAGGCTGCTTTTGCAACAGAGATTGTGTCTGCTGTTGTGTGACGAGCTTCTAT	1553
Qy	1934	CTGCGCTTCAATCGGCGCGCTGTGACGGGCGAGAGGGCGTGTGAGATCATTCGCGAAGCATG	1993
Db	1554	CTTGCTTCATTTGGAGATTAAGACATCAAAAAGTATAGATCTCATATGTGCGAAGCCATG	1613
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Db	1614	CATGTGCTGTGTGTGCAAGATCTTACAGATATCATGTGTGGCATTTGGAGGCTCAGACCTC	1673
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GenCore version 5.1.6
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OM nucleic - nucleic search, using sw model

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Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

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4	2141.2	75.3	2946	19	US-10-416-439C-4
5	2138.4	75.2	2950	19	US-10-416-439C-2
6	2137.4	75.2	2951	19	US-10-416-439C-3
7	1310	46.1	1958	20	US-10-425-115-177202

8	1294.8	45.6	2959	19	US-10-437-963-62213	Sequence 62213, A
9	1238.6	43.6	2412	17 <td>US-10-260-238-1034</td> <td>Sequence 1034, Ap</td>	US-10-260-238-1034	Sequence 1034, Ap
10	1233.2	43.4	2010	17 <td>US-10-336-753-50</td> <td>Sequence 50, Appl</td>	US-10-336-753-50	Sequence 50, Appl
11	1233.2	43.4	2865	19 <td>US-10-109-048-1143</td> <td>Sequence 1143, Appl</td>	US-10-109-048-1143	Sequence 1143, Appl
12	1161.2	40.9	1888	18 <td>US-10-425-114-34283</td> <td>Sequence 34283, A</td>	US-10-425-114-34283	Sequence 34283, A
13	1104.6	38.9	2007	19 <td>US-10-628-525-8</td> <td>Sequence 8, Appl1</td>	US-10-628-525-8	Sequence 8, Appl1
14	1058.6	37.2	2813	20 <td>US-10-425-115-149880</td> <td>Sequence 149880, A</td>	US-10-425-115-149880	Sequence 149880, A
15	1049	36.9	2423	17 <td>US-10-336-753-48</td> <td>Sequence 48, Appl</td>	US-10-336-753-48	Sequence 48, Appl
16	1049	36.9	2480	19 <td>US-10-109-048-1144</td> <td>Sequence 1144, Ap</td>	US-10-109-048-1144	Sequence 1144, Ap
17	1047.6	36.9	2097	19 <td>US-10-628-525-10</td> <td>Sequence 10, Appl</td>	US-10-628-525-10	Sequence 10, Appl
18	989.4	34.8	1110	17 <td>US-10-260-238-4323</td> <td>Sequence 4323, Ap</td>	US-10-260-238-4323	Sequence 4323, Ap
19	913.8	32.2	1828	18 <td>US-10-425-114-1052</td> <td>Sequence 1052, Ap</td>	US-10-425-114-1052	Sequence 1052, Ap
20	815.4	28.7	1502	18 <td>US-10-425-114-31744</td> <td>Sequence 31744, A</td>	US-10-425-114-31744	Sequence 31744, A
21	806.6	28.4	2418	15 <td>US-10-044-543-25</td> <td>Sequence 25, Appl</td>	US-10-044-543-25	Sequence 25, Appl
22	784	27.6	2418	18 <td>US-10-425-114-8227</td> <td>Sequence 8227, Ap</td>	US-10-425-114-8227	Sequence 8227, Ap
23	784	27.6	2969	18 <td>US-10-424-599-59744</td> <td>Sequence 59744, A</td>	US-10-424-599-59744	Sequence 59744, A
24	737.4	25.9	2348	15 <td>US-10-044-543-5</td> <td>Sequence 5, Appl1</td>	US-10-044-543-5	Sequence 5, Appl1
25	717.8	25.3	2793	15 <td>US-10-284-668-7</td> <td>Sequence 7, Appl1</td>	US-10-284-668-7	Sequence 7, Appl1
26	715.6	25.2	1623	18 <td>US-10-425-114-2836</td> <td>Sequence 2836, Ap</td>	US-10-425-114-2836	Sequence 2836, Ap
27	713.6	25.1	3260	19 <td>US-10-437-963-80144</td> <td>Sequence 80144, A</td>	US-10-437-963-80144	Sequence 80144, A
28	711.4	25.0	1926	15 <td>US-10-284-668-5</td> <td>Sequence 5, Appl1</td>	US-10-284-668-5	Sequence 5, Appl1
29	644.2	22.7	662	17 <td>US-10-260-238-4322</td> <td>Sequence 4322, Ap</td>	US-10-260-238-4322	Sequence 4322, Ap
30	614	21.6	2540	20 <td>US-10-425-115-177203</td> <td>Sequence 177203, A</td>	US-10-425-115-177203	Sequence 177203, A
31	558	19.6	992	18 <td>US-10-425-114-15417</td> <td>Sequence 15417, A</td>	US-10-425-114-15417	Sequence 15417, A
32	547.6	19.3	3148	19 <td>US-10-437-963-80145</td> <td>Sequence 80145, A</td>	US-10-437-963-80145	Sequence 80145, A
33	451.6	15.9	632	17 <td>US-10-260-238-4324</td> <td>Sequence 4324, Ap</td>	US-10-260-238-4324	Sequence 4324, Ap
34	441	15.5	1645	18 <td>US-10-425-114-32073</td> <td>Sequence 32073, A</td>	US-10-425-114-32073	Sequence 32073, A
35	441	15.5	1694	20 <td>US-10-425-115-37201</td> <td>Sequence 37201, A</td>	US-10-425-115-37201	Sequence 37201, A
36	354.4	12.5	5058	10 <td>US-09-899-595-1</td> <td>Sequence 1, Appl1</td>	US-09-899-595-1	Sequence 1, Appl1
37	291.2	10.2	778	19 <td>US-10-437-963-80142</td> <td>Sequence 80142, A</td>	US-10-437-963-80142	Sequence 80142, A
38	284.6	10.0	587	18 <td>US-10-425-114-15253</td> <td>Sequence 15253, A</td>	US-10-425-114-15253	Sequence 15253, A
39	275.6	9.7	2287	19 <td>US-10-767-701-15855</td> <td>Sequence 15855, A</td>	US-10-767-701-15855	Sequence 15855, A
40	268.6	9.5	682	17 <td>US-10-260-238-4016</td> <td>Sequence 4016, Ap</td>	US-10-260-238-4016	Sequence 4016, Ap
41	254.4	9.0	2542	19 <td>US-10-628-525-6</td> <td>Sequence 6, Appl1</td>	US-10-628-525-6	Sequence 6, Appl1
42	251.6	8.9	1818	15 <td>US-10-228-063-7</td> <td>Sequence 7, Appl1</td>	US-10-228-063-7	Sequence 7, Appl1
43	251.6	8.9	1863	21 <td>US-10-877-645-11</td> <td>Sequence 11, Appl</td>	US-10-877-645-11	Sequence 11, Appl
44	250	8.8	2267	10 <td>US-09-961-077-25</td> <td>Sequence 25, Appl</td>	US-09-961-077-25	Sequence 25, Appl
45	248.4	8.7	1818	21 <td>US-10-877-645-2</td> <td>Sequence 2, Appl1</td>	US-10-877-645-2	Sequence 2, Appl1

ALIGNMENTS

RESULT 1
US-09-952-677-5
; Sequence 5, Application US/09952677
; Patent No. US20020138876A1
; GENERAL INFORMATION:
APPLICANT: Block, Martina
Lortz, Horst
Luticke, Stephanie
Walter, Lemnat
Froberg, Claus
Kossmann, Jens
TITLE OF INVENTION: NUCLEIC ACID MOLECULES ENCODING ENZYMES
FROM WHEAT WHICH ARE INVOLVED IN STARCH
SYNTHESIS
NUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESS:
ADDRESSEE: James F. Haley, Jr., c/o Fish & Neave
STREET: 1251 Avenue of the Americas
CITY: New York
STATE: New York
COUNTRY: United States of America
ZIP: 10020
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30 (EPO)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/952,677
FILING DATE: 14-Sep-2001

PRIOR APPLICATION DATA:
APPLICATION NUMBER: 09/196,390
FILING DATE: 19-NO. US2002013876A1-1998
APPLICATION NUMBER: DE 196 21 588.9
FILING DATE: 29-MAY-1996
APPLICATION NUMBER: DE 196 36 917.7
FILING DATE: 11-SEP-1996
APPLICATION NUMBER: PCT/EP97/02793
FILING DATE: 28-MAY-1997
ATTORNEY/AGENT INFORMATION:
NAME: Haley, Jr., James F.
REGISTRATION NUMBER: 27,794
REFERENCE/DOCKET NUMBER: AGREVO-9
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 596-9000
TELEFAX: (212) 596-9090
INFORMATION FOR SEQ ID NO: 5:
SEQUENCE CHARACTERISTICS:
LENGTH: 2825 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: cDNA to mRNA
HYPOTHETICAL: NO
ANTI-SENSE: NO
ORIGINAL SOURCE:
ORGANISM: Trifolium aestivum L.
STRAIN: cv. Florida
TISSUE TYPE: ca. 21 d Caryopses
IMMEDIATE SOURCE:
LIBRARY: cDNA library in pBluescript sk (-)
CLONE: pTAS51
FEATURE:
NAME/KEY: CDS
LOCATION: 162..2559
SEQUENCE DESCRIPTION: SEQ ID NO: 5:
US-09-952-677-5

Query Match 84.2% Score 2392.2; DB 9; Length 2825;
Best Local Similarity 93.8%; Pred. No. 0;
Matches 2613; Conservative 0; Mismatches 108; Indels 66; Gaps 9;
QY 2 CTGCCACCACTCCGCTGCGCGCTCTGGCGGAGGACCAACCCCGCATCGTACCA 61
DB 89 CTGCCACCACTCCGCTGCGCGCTCTGGCGGAGGACCAACCCCGCATCGTACCA 145
QY 62 TCGCCCCCGCCGATCCCGCCGCGCATGTGTGTGGCGGTGTGGCTCCGCGCTTC 121
DB 146 TCTCCCGCCGAT-----CCATGTGTGTGGCGGTGTGGCTCCGCGCATCTTC 194
QY 122 CTGCGGCTCGCTCGGCTCCCGCGGAGATCAGCGAGGCGGCGAGGAGTGAGCGCGC 181
DB 195 CTGCGGCTCGCTCGGCTCCCGCGGAGATCAGCGAGGCGGCGAGGAGTGAGCGCGC 254
QY 182 CCACCCACGCGGCGGCGGAGGCTGCACTGCGCGCGCTGCGCGCGCGAGCGAGCT 241
DB 255 CCACCCACGCGGCGGCGGAGGCTGCACTGCGCGCGCTGCGCGCGCGAGCGAGCT 314
QY 242 CGCGACGAGGTGTGGCGCGCGCGCGCGCGCGGAGAGAGAGAGAGAGAGAGAG 301
DB 315 CGCGACGAGGTGTGGCGCGCGCGCGCGCGCGGAGAGAGAGAGAGAGAGAGAG 374
QY 302 GCGCGCTCGGAGGAGCGCGCGCGCGCGCGCGGAGAGAGAGAGAGAGAGAGAG 361
DB 375 GCGCGCTCGGAGGAGCGCGCGCGCGCGCGCGGAGAGAGAGAGAGAGAGAGAG 434
QY 382 CGGAGGATCCCGTCAAGAGCTGATCGAGCGCGCGGAGAGAGAGAGAGAGAGAG 421
DB 435 CGAAGGATCCCGTCAAGAGCTGATCGAGCGCGCGGAGAGAGAGAGAGAGAGAG 494
QY 422 CGGACAGGAGAGAGAGCGCGCGCGCGCGCGCGAGATGAGAGAGAGAGAGAGAG 481
DB 495 CCGGACAGGAGAGAGAGCGCGCGCGCGCGCGCGAGATGAGAGAGAGAGAGAGAG 554

QY 482 GAGAACAAATCTACCGCGCGCGCGCGCGAGCAAAAGACAGCGGCTGCCGACCGCA 541
DB 555 GAGAACAAATCTACCGCGCGCGCGCGCGCGAGCAAAAGACAGCGGCTGCCGACCGCA 614
QY 542 CGCGCGCCCATCCGTCGACCCAGAGACAGAGTCAAGTGAACGTTGAGAGAGAGAG 601
DB 615 CGCGCGCCCATCCGTCGACCCAGAGACAGAGTCAAGTGAACGTTGAGAGAGAGAG 674
QY 602 GTCCGCTCGCGCGCGAGAGATAGCGAGGCTCGCGGATTCGCGAGTCACTT 661
DB 675 GTCCGCTCGCGCGCGAGAGATAGCGAGGCTCGCGGATTCGCGAGTCACTT 734
QY 682 TCATCACTGACCAAGGCGCGGAGTCCGTTGTCCAGCGGAGAGAGCGCGCGCTCC 721
DB 735 TCATCACTGACCAAGGCGCGGAGTCCGTTGTCCAGCGGAGAGAGCGCGCGCTCC 794
QY 722 GAGTCAAAATTCGTGTCTCGCTTCTGCTCCAGGCTGACATTTGACAGCGAGTTGAA 781
DB 795 GAGTCAAAATTCGTGTCTCGCTTCTGCTCCAGGCTGACATTTGACAGCGAGTTGAA 854
QY 782 CCGTGAACGAGAGAGGCGGTCATCGTGAAGAGCTCCAAAGCGCTTTCG 841
DB 855 CAAGAACGAGAGAGGCGGTCATCGTGAAGAGCTCCAAAGCGCTTTCG 914
QY 842 CCGCTGAGGCGCGCGCTGTACAAAGAGACCTTTGGACTTCAAGAAATACATTGGCTTC 901
DB 915 CCGCTGAGGCGCGCGCTGTACAAAGAGACCTTTGGACTTCAAGAAATACATTGGCTTC 974
QY 902 GAGGAGCCCGTGGAGGCGCAAGAGATAGCTGGGCTGTGCAAGATGATCGGAGCTTTC 961
DB 975 GAGGAGCCCGTGGAGGCGCAAGAGATAGCTGGGCTGTGCAAGATGATCGGAGCTTTC 1034
QY 962 GAACATCAACGAACATGATTCGCGACCTTTGGAGGAGAGAGTCAAGTGAAGCTGTC 1021
DB 1035 GAACATCAACGAACATGATTCGCGACCTTTGGAGGAGAGAGTCAAGTGAAGCTGTC 1094
QY 1022 GTCGTGCTGCTGAATGTTCTCCCTGTGCAAAACAGGTGCTTTGAGATTTGCGGCT 1081
DB 1095 GTCGTGCTGCTGAATGTTCTCCCTGTGCAAAACAGGTGCTTTGAGATTTGCGGCT 1154
QY 1082 GCTTGGCCCAAGGCTTTGGCAAGAGAGACATGTTTATGTTGTGATCAAGATAT 1141
DB 1155 GCTTGGCCCAAGGCTTTGGCAAGAGAGACATGTTTATGTTGTGATCAAGATAT 1214
QY 1142 GGGGACTATGAGAGAGCTTATGATGCGAGTCCGAAATCTAAGGCTGCGAGAG 1201
DB 1215 GGGGACTATGAGAGAGCTTATGATGCGAGTCCGAAATCTAAGGCTGCGAGAG 1274
QY 1202 GATATGAGAGAGATTTATTCATGCTTATATGATGAGATTTTGTTCATTGAC 1261
DB 1275 GATATGAGAGAGATTTATTCATGCTTATATGATGAGATTTTGTTCATTGAC 1334
QY 1262 GCTCTCTTTCGACACCGCGAGAGACATTTATGCGGCGAGAGAGAGAGATATG 1321
DB 1335 GCTCTCTTTCGACACCGCGAGAGACATTTATGCGGCGAGAGAGAGAGATATG 1394
QY 1332 AAGCGCATGATTTTGTGCAAGGCGCTGTGAGAGTTCCTTGGCAAGTCCAGCGCG 1381
DB 1395 AAGCGCATGATTTTGTGCAAGGCGCTGTGAGAGTTCCTTGGCAAGTCCAGCGCG 1454
QY 1382 GGTGTCCCTTATGAGGAGTGAATATGATGTTTATTTAGAGATTTGACACGCACTC 1441
DB 1455 GGTGTCCCTTATGAGGAGTGAATATGATGTTTATTTAGAGATTTGACACGCACTC 1514
QY 1442 CTGCTGTCTATCTGAAGACATTTATCAGGAGCAATGATTTGATGACAGTCACTCGTCC 1501
DB 1515 CTGCTGTCTATCTGAAGACATTTATCAGGAGCAATGATTTGATGACAGTCACTCGTCC 1574
QY 1502 ATTATGATGATATCAATACATGCGGACCAAGGCGGTGGCCAGTGAAGATTTCCGTTTC 1561
DB 1575 ATTATGATGATATCAATACATGCTCAACAGGCGGTGGCCCTGTGATGAATTTCCGTTTC 1634

Oy	1562	ACCGAGTTCGCGTGAACAACA	CTTGAACA	CTGTAC	CTGTAC	AGACCCCGTGGTGTAG	162	
Dp	1635	ACCGAGTTGCCTGAACA	CTACTGTGAACA	CTTCAAC	CTGTAC	GTACACCCGTGGTGTGTAA	169	
Oy	1622	CACGCGCACTACTTGGCCGCGCGGCTGTGAAGA	TGGCGGAC	CAGAGTTGTGCTGGTGTGAGCCG		168		
Dp	1695	CACGCGCACTACTTGGCCGCGCGGCTGTGAAGA	TGGCGGAC	CAGAGTTGTGCTGGTGTGAGCCG		175		
Oy	1662	GAGGTACCTGTGGGAGCTCA	NAGACGGTGA	GAGCGCGGCTGGGGGCTT	CA	CGACATCATACGG	174	
Dp	1755	GAGGTACCTGTGGGAGCTGA	AGACGGTGA	GAGCGCGGCTGGGGGCTT	CA	CGACATCATACGG	181	
Oy	1742	CAGAACGACTGGGAANA	CCCGCGGCACTCGTCA	CCGCGCACTCGA	CA	NATGAGTGTGAACCC	180	
Dp	1815	CAGAACGACTGGGAANA	CCCGCGGCACTCGTCA	CCGCGCACTCGA	CA	NATGAGTGTGAACCC	187	
Oy	1802	GAGGTGACGCTTCACCTCA	AGTCGGA	CGGCTCA	CCAACTTCTCCTCGGGGACGCTGAC	186		
Dp	1875	GAGGTGACGCTTCACCTCA	AGTCGGA	CGGCTCA	CCAACTTCTCCTCGGGGACGCTGAC	193		
Oy	1862	TCCGGCAAGCGGCA	GTGACAGAGG	CCCTGCA	CGCGAGCTGGGCTGCA	GGTCCGCGC	192	
Dp	1935	TCCGGCAAGCGGCA	GTGACAGAGG	CCCTGCA	CGCGAGCTGGGCTGCA	GGTCCGCGC	199	
Oy	1922	GACGTGCGCGTCTGTGGCTT	ATCCGCGCGCTTGAC	CGGCGAGAAAGGCGTGAATCAT	TC	198		
Dp	1995	GACGTGCGCGTCTGTGGCTT	ATCCGCGCGCTTGAC	CGGCGAGAAAGGCGTGAATCAT	TC	205		
Oy	1982	GCGGACGCGCACTGACCTTGATCG	TGAGCCAGAG	CGAGCTGGATCAT	CTGGGGCA	CCGCG	204	
Dp	2055	GCGGACGCGCACTGACCTTGATCG	TGAGCCAGAG	CGAGCTGGATCAT	CTGGGGCA	CCGCG	211	
Oy	2042	CGCCACGACTGAGAGATGCTG	CGGACA	CTTTCAG	CGGAGAC	CA	CGACAMAGGTGCGC	210
Dp	2115	CGCCACGACTGAGAGATGCTG	CGGACA	CTTTCAG	CGGAGAC	CA	CGACAMAGGTGCGC	217
Oy	2102	GCGTGGGTGGGGTTCTCCGTG	CGCTGCGCAC	CCGATCA	CGGCGGGCGCGAC	CGCGCTC	216	
Dp	2175	GCGTGGGTGGGGTTCTCCGTG	CGCTGCGCAC	CCGATCA	CGGCGGGCGCGAC	CGCGCTC	223	
Oy	2162	CTCATGCGCCTCCCGGTTG	AGCCGCGGTTGAAC	CAAGCTTTTAC	GCGCATGGCCTTAC	CGG	222	
Dp	2235	CTCATGCGCCTCCCGGTTG	AGCCGCGGTTGAAC	CAAGCTTTTAC	GCGCATGGCCTTAC	CGG	229	
Oy	2222	ACCGTCCCGGTCTGTGAC	CGCGGTGAGGAGGAGAC	CA	CGCTGCGCGCTTTCGAC	CCCC	228	
Dp	2295	ACCGTCCCGGTCTGTGAC	CGCGGTGAGGAGGAGAC	CA	CGCTGCGCGCTTTCGAC	CCCC	235	
Oy	2282	TTCAAACA	CTCCGCGCTTGGGTGAC	GTTTCGAC	CGCGCGCGAC	CA	AGCTGATCGAG	234
Dp	2355	TTCAAACA	CTCCGCGCTTGGGTGAC	GTTTCGAC	CGCGCGCGAC	CA	AGCTGATCGAG	241
Oy	2342	GCGCTCCGGGCACTGCTC	CGGACCTTAC	CGGGGACTTCA	AGAGAGGTTGA	AGGGGCTTCCAG	240	
Dp	2415	GCGCTCCGGGCACTGCTC	CGGACCTTAC	CGGGGACTTCA	AGAGAGGTTGA	AGGGGCTTCCAG	247	
Oy	2402	GAGCGCGGCACTGTGCA	GAGACTTTCAG	CTGGGAGCA	TGCGCGCAAGCTTCA	CGAGGACGTC	246	
Dp	2475	GAGCGCGGCACTGTGCA	GAGACTTTCAG	CTGGGAGCA	TGCGCGCAAGCTTCA	CGAGGACGTC	253	
Oy	2462	CTCCTCAAGGCGCA	AGTACCAAGTGTGA	ACGCTAGCTGTAC	CGCGCTTCAG	CGCGCGGACGTC	252	
Dp	2535	CTCCTCAAGGCGCGCA	AGTACCAAGTGTGA	ACGCTAGCTGTAC	CGCGCTTCAG	CGCGCGGACGTC	259	
Oy	2522	GTCGATGATGAGAGG	GTTGAATGCGGATTTG	CGCGCGCGCA	AGACGTCATCTTCTTCG		258	
Dp	2595	GTCGATGATGAGAGG	GTTGAATGCGGATTTG	CGCGCGCGCA	AGACGTCATCTTCTTCG		264	
Oy	2582	ATGGGAGCGCGGCACT	CCGCAAGGTGAC	AGTACATGAGAGG	GTGTGTGAGACGCT	264		
Dp	2641	ATGGGAGCGCGGCACT	CCGCAAGGTGAC	AGTACATGAGAGG	GTGTGTGAGACGCT	269		
Oy	2642	GATTTCGATCTGTGCT	GTGCGTGA	CGAGAGTGA	CGGACGTGAGGACGCTCTTGT	270		

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Db      2686 GATTC-----CAATCCGCGCCGTCGAGATGAGCGG----- 2728
Qy      2702 TGCAGTATATGGAATGTTGTCAACTGTGTAATTGCTAATGTTGTAATGCGTTAT 2761
Db      2729 ---AGGTATATGGGAACTT---AAGTGGTATTGTATTTGTATGTTGTGTGATTAAT 2788
Qy      2762 TACAATGTTGTTACTTATTTCTTTGTTAA 2788
Db      2783 TACAATGTTGTTACTTATTTCTTTGTTAA 2809

RESULT 2
US-10-818-624-5
; Sequence 5, Application US/10818624
; Publication No. US20040204579A1
; GENERAL INFORMATION:
; APPLICANT: Block, Martina
; LOTZ, Horst
; Luticke, Stephanie
; Walter, Lemart
; Froberg, Claus
; Kosemann, Jens
TITLE OF INVENTION: NUCLEIC ACID MOLECULES ENCODING ENZYMES
FROM WHEAT WHICH ARE INVOLVED IN STARCH
SYNTHESIS
NUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESS:
ADDRESSEE: James F. Haley, Jr., c/o Fish & Neave
STREET: 1251 Avenue of the Americas
CITY: New York
STATE: New York
COUNTRY: United States of America
ZIP: 10020
COMPUTER READABLE FORM:
MEDIUM TYPE: floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30 (EPO)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/818,624
FILING DATE: 05-Apr-2004
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/09/952,677
FILING DATE: 14-Sep-2001
APPLICATION NUMBER: 09/196,390
FILING DATE: 19-Nov-1998
APPLICATION NUMBER: DE 196 21 588.9
FILING DATE: 29-MAY-1996
APPLICATION NUMBER: DE 196 36 917.7
FILING DATE: 11-SEP-1996
APPLICATION NUMBER: PCT/EP97/02793
FILING DATE: 28-MAY-1997
ATTORNEY/AGENT INFORMATION:
NAME: Haley, Jr., James F.
REGISTRATION NUMBER: 27,794
REFERENCE/DOCKET NUMBER: AGREVO-9
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 596-9000
TELEFAX: (212) 596-9090
INFORMATION FOR SEQ ID NO: 5:
SEQUENCE CHARACTERISTICS:
LENGTH: 2825 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: cDNA to mRNA
HYPOTHEetical: NO
ANTI-SENSE: NO
ORIGINAL SOURCE:
ORGANISM: Triticum aestivum L.
STRAIN: cv. Florida
TISSUE TYPE: ca. 21 d Caryopses

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IMMEDIATE SOURCE:
LIBRARY: cdna library in pbluescript sk (-)
CLONE: pTAS1
FEATURE:
NAME/KEY: CDS
LOCATION: 162..2559
SEQUENCE DESCRIPTION: SEQ ID NO: 5
US-10-818-624-5

Query Match 84.2%; Score 2392.2; DB 20; Length 2825;
Best Local Similarity 93.8%; Pred. No. 0;
Matches 2613; Conservative 0; Mismatches 108; Indels 66; Gaps 9;

QY 2 CTGACACCACTCCGCTGCGCGCTGCGCGGAGGACCAACCCGCGCATCTACCA 61
DB 89 CTGCCACCACTCCGCTGCGCGCGCTGCGCGGAGGACCAACCCGCGCATCTACCA 145
QY 62 TCGCCCGCCCGATCCCGCGCGCGCGCATGTCGTGCGCGGTGCGCGCTCCGCTCTTC 121
DB 146 TCTCCCGCCCGAT-----CAATGTCGTGCGCGGTGCGCGCTCCGCGCATCTTC 194
QY 122 CTCGCGCTGCTCCGCTCCGCTCCGCGGAGATCAACGAGCGGGCGAGGTGAGCGCGCG 181
DB 195 CTCGCGCTGCTGAGCTCTCCCGGAGATCAACGAGCGGGCGAGGTGAGCGCGAG 254
QY 182 CCACCCCAAGCGCGGCGCGGAGGCTGCACTGCGCGCGCTGCGCGCGCGAGCGAGCT 241
DB 255 CCAACCCCAAGCGCGGCGCGGAGGCTGCACTGCGCGCGCTGCGCGCGCGAGCGAGCT 314
QY 242 CGCGACGAGGTGTGCGCGCGCGCGCGCGGAGGAGAGAGCGCGAGGTGCAACGAGC 301
DB 315 CGCGACGAGGTGTGCGCGCGCGCGCGCGGAGGAGAGAGCGCGAGGTGCAACGAGC 374
QY 302 GCGCGGTCCGCGGAGGAGCGCGCGCGCGCGGAGGCGCGCAACGAGGTCCGCGAG 361
DB 375 GCGCGGTCCGCGGAGGAGCGCGCGCGCGCGGAGGCGCGCAACGAGGTCCGCGAG 434
QY 362 CGGAGGATCCCGTCAAGAGCTGATGCGAGCGCGCGGAGGAGGTGCGCGCGGAGCGG 421
DB 435 CGAAGGATCCCGTCAAGAGCTGATGCGAGCGCGCGGAGGAGGTGCGCGCGGAGCGG 494
QY 422 CGGACCGAGGAGAGCGCGCGCGCGCGCGGAGGAGGTGCGCGCGGAGCGGAGCGT 481
DB 495 CGGAGGAGGAGAGCGCGCGCGCGCGCGGAGGAGGTGCGCGCGGAGCGGAGCGT 554
QY 482 GAGAACAAATCTACCGCGCGCGCGCGCGGAGGAGGAGGTGCGCGCGGAGCGGAG 541
DB 555 GAGAACAAATCTACCGCGCGCGCGCGCGGAGGAGGAGGTGCGCGCGGAGCGGAG 614
QY 542 CGCGCGCGCGATCCGTGAGACCGAGAACAGAGTACAGTGAACGAGTGAACAAAGCTAAC 601
DB 615 CGCGCGCGCGATCCGTGAGACCGAGAACAGAGTGAACGAGTGAACAAAGCTAAC 674
QY 602 GTGCGCTGCGCGCGCGAGCATGAGCTGAGGTGCGCGAGTTCGCGAGCTACATT 661
DB 675 GTGCGCTGCGCGCGCGAGCATGAGCTGAGGTGCGCGAGTTCGCGAGCTACATT 734
QY 662 TCCATCAGGAGCAAGGCGCGGAGTCCGTGCTCCAGCGGAGTGAACGAGCTGCTTC 721
DB 735 TCCATCAGGAGCAAGGCGCGGAGTCCGTGCTCCAGCGGAGTGAACGAGCTGCTTC 794
QY 722 GCGTCAATTTGCTGCTGCTGCTGCTCCAGCGGAGTGAACGAGCTGCTTC 781
DB 795 GCGTCAATTTGCTGCTGCTGCTGCTCCAGCGGAGTGAACGAGCTGCTTC 854
QY 782 CCTGAACCTGAAGAGGTGCGGTGATGTCGAGAGAGGCTCAACCCCAAGGCTCTTCG 841
DB 855 CAAGAAGCTGAAGAGGTGCGGTGATGTCGAGAGAGGCTCAACCCCAAGGCTCTTCG 914
QY 842 CGGCGTGAAGCGCGCGGTGATGAAGAGCTTTGGAGATTCAAGAAATACATTGGCTTC 901
DB 915 CGGCGTGAAGCGCGCGGTGATGAAGAGCTTTGGAGATTCAAGAAATACATTGGCTTC 974

QY 902 GAGGAGCCCGTGAAGAGCCAGAGATGATGCGGCTGTTGCAGATGATGCGGCTCTTC 961
DB 975 GAGGAGCCCGTGAAGAGCCAGAGATGATGCGGCGGTGTCGAGATGATGCGGCTCTTC 1034
QY 962 GAACATCACCAAGACATGATTCGGAGCTTTGGAGGGGAGAGCTGATGAACGTGCTC 1021
DB 1035 GAACACCAACAGAACTACGAGCTCCGAGCTTTGGAGGGGAGAGATGATGAACGTGCTC 1094
QY 1022 GTGCGGTGCTGAATGTTCTCCCTGCTGCAAAACAGGTGCTTTGAGATGTTGCGGCT 1081
DB 1095 GTGCGGTGCTGAATGTTCTCCCTGCTGCAAAACAGGTGCTTTGAGATGTTGCGGCT 1154
QY 1082 GCTTGGCCCAAGGCTTTGGAGAGAGAGACATGTTATGTTGTGCTACCAAGTAT 1141
DB 1155 GCTTGGCCCAAGGCTTTGGAGAGAGAGACATGTTATGTTGTGCTACCAAGTAT 1214
QY 1142 GGGGACTATGAGAGAGCTTACGATGTCGAGTCCGAAATCTACAAAGCTGCGAGAG 1201
DB 1215 GGGGACTATGAGAGAGCTTACGATGTCGAGTCCGAAATCTACAAAGCTGCGAGAG 1274
QY 1202 GATATGAGAGTGAATTTATTTCCATGCTTATATGATGAGTTGATTTGTTCATTGAC 1261
DB 1275 GATATGAGAGTGAATTTATTTCCATGCTTATATGATGAGTTGATTTGTTCATTGAC 1334
QY 1262 GCTCTCTCTTCCGACACCGCGAGAGACATTTATGCGGCGAGAGACAGAAATATG 1321
DB 1335 GCTCTCTCTTCCGACACCGCTCAGAGAGACATTTATGCGGCGAGAGACAGAAATATG 1394
QY 1332 AAGGCAATGATTTTGTCTGCAAGGCGCTGTGCAAGTTCCTTGGCAGCTTCAAGCGG 1381
DB 1395 AAGGCAATGATTTTGTCTGCAAGGCGCTGTGCAAGTTCCTTGGCAGCTTCAAGCGG 1454
QY 1382 GGTGTCCCTTATGAGGAGTGAATCTGCTTTATTTGCAAAATGATTTGACACGCGACTC 1441
DB 1455 GGTGTCCCTTATGAGGAGTGAATCTGCTTTATTTGCAAAATGATTTGACACGCGACTC 1514
QY 1442 CTGCTGTCTATCTGAAGACATTTACAGGAGCACTGTTGATGATGATCACTCGGCTC 1501
DB 1515 CTGCTGTCTATCTGAAGACATTTACAGGAGCACTGTTGATGATGATCACTCGGCTC 1574
QY 1502 ATTATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1561
DB 1575 ATTATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1634
QY 1562 ACCGAGTTGCTGAGACATCACTCTGGAACATTTCAAGCTGTACGACCCCGGTGAGT 1621
DB 1635 ACCGAGTTGCTGAGACATCACTCTGGAACATTTCAAGCTGTACGACCCCGGTGAGT 1694
QY 1622 CACGCACTACTTGGCGCGCGCTGGAAGATGCGGACCAAGTGTGCTGAGTACGCC 1681
DB 1695 CACGCACTACTTGGCGCGCGCTGGAAGATGCGGACCAAGTGTGCTGAGTACGCC 1754
QY 1682 GGGTACCTGTGGAGACTCAAGCGGTGAGAGGGCGGTGGGGCTTACGACATCTAGG 1741
DB 1755 GGGTACCTGTGGAGACTCAAGCGGTGAGAGGGCGGTGGGGCTTACGACATCTAGG 1814
QY 1742 CAGAACGACTGGAAGACCGCGGCGCATGTCACAGCGCATGCAACATGAGTGAACCC 1801
DB 1815 CAGAACGACTGGAAGACCGCGGCGCATGTCACAGCGCATGCAACATGAGTGAACCC 1874
QY 1802 GAGGTGAGAGTCCACTCAAGTCCGAGCGCTACACCAATCTTCTCCCTGGGAGCGTGCAC 1861
DB 1875 GAGGTGAGAGTCCACTCAAGTCCGAGCGCTACACCAATCTTCTCCCTGGGAGCGTGCAC 1934
QY 1862 TCCGCAAGCGGCAATGCAAGAGGCGCTGACGCGCGAGCTGAGGTCCGCGGC 1921
DB 1935 TCCGCAAGCGGCAATGCAAGAGGCGCTGACGCGCGAGCTGAGGTCCGCGGC 1994
QY 1922 GACGTGCGGCTGCTGCGCTTCACTGCGCGCGCTGACGCGGAGAGAGGCGTGAAGATCATC 1981
DB 1995 GACGTGCGGCTGCTGCGCTTCACTGCGCGCGCTGACGCGGAGAGAGGCGTGAAGATCATC 2054
QY 1982 GCGAAGCGCATGCTCTGATGCTGAGCAAGAGCTGACGCTGCTGCTGCGGACCGGC 2041

Db 2055 GCGGACGCAATGCTGATGCTGAGCAGAGACTGAGCTGTGATGCTGGGACCGGG 2114
Qy 2042 CGCCACGACCTGAGAGACATGCTGCGGACCTTTCAGAGCGGAGCACCAGCAAGTGGCG 2101
Db 2115 CGCCACGACCTGAGAGACATGCTGCGGACCTTTCAGAGCGGAGCACCAGCAAGTGGCG 2174
Qy 2102 GGGTGGGTGGGGTCTCTCGTGGCGCTGAGCGGACCGGATTCAGAGGGGGCGCGCGCTC 2161
Db 2175 GGGTGGGTGGGGTCTCTCGTGGCGCTGAGCGGACCGGATTCAGAGGGGGCGCGCGCTC 2234
Qy 2162 CTGATGCTCTCCCGGTTTGAGCGCGGTGCGGTTGAGACGCTTTTACGCGCATGCGCTACGCG 2221
Db 2235 CTGATGCTCTCCCGGTTTGAGCGCGGTGCGGTTGAGACGCTTTTACGCGCATGCGCTACGCG 2294
Qy 2222 ACCGTCCCGCTGTGCGACCGCGGTGCGGGGTGAGGGACACCGTGGCGGCTTTCAGCGCC 2281
Db 2295 ACCGTCCCGCTGTGCGACCGCGGTGCGGGGTGAGGGACACCGTGGCGGCTTTCAGCGCC 2354
Qy 2282 TTCAACCACTCCGGGCTCGGGTGGAGCGTTGAGCGCGCGCGGAGCGACCAAGCTGATGAG 2341
Db 2355 TTCAACCACTCCGGGCTCGGGTGGAGCGTTGAGCGCGCGCGGAGCGACCAAGCTGATGAG 2414
Qy 2342 GCGCTGGGACCTGCTCCGCACTACCGGACCTACAGAGAGAGAGCTGAGGGGCTTCAG 2401
Db 2415 GCGCTGGGACCTGCTCCGCACTACCGGACCTACAGAGAGAGAGCTGAGGGGCTTCAG 2474
Qy 2402 GAGCGCGGACATGTGCGAGGACTTCACTGGGAGAGATGCGCGCAAGCTTTCAGAGAGCTC 2461
Db 2475 GAGCGCGGACATGTGCGAGGACTTCACTGGGAGAGATGCGCGCAAGCTTTCAGAGAGCTC 2534
Qy 2462 CTGCTCAAGGCGCAAGTCACTGAGTGAACGCTAGCTGAGCGCTGACGCGCGCGGCTTC 2521
Db 2535 CTGCTCAAGGCGCAAGTCACTGAGTGAACGCTAGCTGAGCGCTGACGCGCGCGGCTTC 2594
Qy 2522 GTGCTGATGAGAGGGTGAAGTGCATTCGCGCGCGCGGAGGAGCTGCGCATCTTCCTCG 2581
Db 2595 GTGCTGATGAGAGGGTGAAGTGCATTCGCGCGCGCGGAGGAGCTGCGCATCTTCCTCG 2640
Qy 2582 ATGGAGAGCGCGCGGATCCGAGGCTGAGTGAAGTGAAGGCTGTGTGTGTGTGTGTGTGT 2641
Db 2641 ATGGAGAGCGCGCGGATCCGAGGCTGAGTGAAGTGAAGGCTGTGTGTGTGTGTGTGTGT 2695
Qy 2642 GATTCCGATCTGATCTGTCGCTGAGAGAGTGAAGGAGAGTGAAGGAGCGCTCTGTGT 2701
Db 2696 GATTCCGATCTGATCTGTCGCTGAGAGAGTGAAGGAGAGTGAAGGAGCGCGCTCTGTGT 2728
Qy 2702 TGCAGGATATGAGGATGTTGTCAACTTGTGATGTTGTGATGTTGTGATGCTGTAT 2761
Db 2729 TGCAGGATATGAGGATGTTGTCAACTTGTGATGTTGTGATGTTGTGATGCTGTAT 2782
Qy 2762 TACATGTTGTACTTATCTCTGTAA 2788
Db 2783 TACATGTTGTACTTATCTCTGTAA 2809

RESULT 3
US-10-416-439C-1
; Sequence 1, Application US/10416439C
; Publication No. US2004019942A1
; GENERAL INFORMATION:
; APPLICANT: Commonwealth Scientific and Industrial Research Organisation
; APPLICANT: Morell, Matthew Kennedy
; APPLICANT: Batey, Ian Leslie
; APPLICANT: Topping, David
; TITLE OF INVENTION: BARLEY WITH REDUCED SSII ACTIVITY AND STARCH CONTAINING PRODUCTS
; FILE REFERENCE: 0070/70440
; CURRENT APPLICATION NUMBER: US/10/416,439C
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 1

; LENGTH: 2920
; TYPE: DNA
; ORGANISM: Hordeum vulgare
US-10-416-439C-1
Query Match 76.6%; Score 2175.8; DB 19; Length 2920;
Best Local Similarity 88.5%; Pred. No. 0;
Matches 2511; Conservative 0; Mismatches 227; Indels 99; Gaps 10;
Qy 46 CCGGCGATGTACATCGCCCGCGGATTCGCGGCGCGGCGGATGCTGCGGCTGCG 105
Db 71 CCGGCGATGTACATCGCCCGCGGATTCGCGGCGCGGCGGATGCTGCGGCTGCG 130
Qy 106 GTCCGCGGCTCTCTCTGCGGCTGCGGCTGCGGCTGCGGCTGCGGCTGCGGCTGCG 162
Db 131 GTCCGCGGCTCTCTCTGCGGCTGCGGCTGCGGCTGCGGCTGCGGCTGCGGCTGCG 190
Qy 163 GCGGAGGTGAGCGCGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 222
Db 191 GCGGAGGTGAGCGCGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 250
Qy 223 GCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 282
Db 251 GCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 303
Qy 283 GCGGAGGTGAGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 342
Db 304 GCGGAGGTGAGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 352
Qy 343 GCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 402
Db 353 GCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 403
Qy 403 AGGTGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 462
Db 404 AGGTGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 463
Qy 463 GCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 522
Db 464 GCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 523
Qy 523 GCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 582
Db 524 GCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 583
Qy 583 GCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 642
Db 584 GCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 643
Qy 643 GCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 702
Db 644 GCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 703
Qy 703 GCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 729
Db 704 GCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 763
Qy 730 TTTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 789
Db 764 TTTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 823
Qy 790 GAGGAGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 849
Db 824 GAGGAGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 883
Qy 850 AGCGCGCGCTGTACAGAGACCTTTGGGACTTCAAGAAATACATTTGGCTTGGAGAGCC 909
Db 884 AGCGCGCGCTGTACAGAGACCTTTGGGACTTCAAGAAATACATTTGGCTTGGAGAGCC 943
Qy 910 GGTGAGGCGGAGGATGAGGCTGCGGCTGTGAGAGATGAGGCTGCTTTGAAATCA 969
Db 944 GGTGAGGCGGAGGATGAGGCTGCGGCTGTGAGAGATGAGGCTGCTTTGAAATCA 1003

OY	970	CCAGAACCATGATTCCCGAACCTTTGGCAGGGGGAGAACGTCAATGAAACGTGCTGCTGGC	1029
Db	1004	CCAGATCATGATTCCGACCTTTGGCAGGGGAGAACGTCAATGAACGTGCTGCTGGC	1063
OY	1030	TGCTGAATGTTCTCCCTGCTGCAAAACAGTGTCTTGGAAGATGTTGCCGGTGCCTTGCC	1089
Db	1064	TGCTGAATGTTCTCCCTGCTGCAAAACAGTGTCTTGGAAGATGTTGCCGGTGCCTTGCC	1123
OY	1090	CAGGCTTTGGCGAAGAGAGACATCGTGTATAGSTTGTGTACCAAGTATGGGGACTA	1149
Db	1124	CAAGCTTTGGCTAAGAGAGACATCGTGTATAGSTTGTGTACCAAGTATGGGGACTA	1183
OY	1150	TGAGGAACCTACATCGATGTCCGAGTCCGAAAATACACAAAGCTGTGTGACAGAGATATGGA	1209
Db	1184	TGAGGAACCTACAGATGTCCGAGTCCGAAAATACCAAGCTGTGTGACAGAGATATGGA	1243
OY	1210	AGTGAATTATTTCCATGCTTATATCGATGAGTAGTATTTTGTTCATTGACGCTCTCT	1266
Db	1244	AGTGAATTATTTCCATGCTTATATCGATGAGTAGTATTTTGTTCATTGAGCTCTCT	1303
OY	1270	CTTCGACACCGCCAGGAAGACATTTATGGGGGACGACACAGAAATTATGAAACGCAT	1329
Db	1304	CTTCGACACCGCTCAGAAAGACATTTATGGGGGACGACACAGAAATTATGAAACGCAT	1363
OY	1330	GATTTTGTTCGCAAGGCGCGCTGTCAGAGTTCTTGACACGTTCCATCCGCGGCTGCC	1389
Db	1364	GATTTTGTTCGCAAGGCGCGCTGTCAGAGTTCTTGACACGTTCCATCCGCGGCTGCC	1422
OY	1390	TTATGGGATGGAATCTGATGTATTATGCAAAATGATTGGCACAGGCACTCTGCCTGT	1449
Db	1424	TTACGGGATGGAATCTGATGTATTATGCAAAATGATTGGCACAGGCACTCTGCCTGT	1483
OY	1450	CTATCTGAAAGCATTTACAGGACCATGTGTTTGAATGACATCTGSGTCCATTATAGT	1509
Db	1484	CTATCTGAAAGCATTTATCAGGAGCATGTGTTTGAATGACATCACTGCTCCGTTATAGT	1543
OY	1510	GATACATATACTCGGCGACACAGGGCGGTGGCCAGTAAATGATATTTCCGTTACCGAATT	1566
Db	1544	GATACATATACTCGCTCACACAGGGCGGTGGCCCTGTATAGTAATGCCGTTACCGAATT	1603
OY	1570	GCTGAGCACTACCTGGAAACATTTAGACTGTACACGCCCGGGGTGTGAGACGCCCA	1629
Db	1604	GCTGAGCACTACCTGGAAACATTTAGACTGTACACGCCCGGTGGTGAACGCCCA	1666
OY	1630	CTACTTCGCGCGCGGCTGAAGATGGCGGACCAAGGTGTGTGTGTAGCCCCCGGTAATT	1689
Db	1664	CTACTTCGCGCGCGGCTGAAGATGGCGGACCAAGGTGTGTGTGTAGCCCCCGGTAATT	1723
OY	1690	GTGGGAGCTCAAGACGTGTGAGAGGGCGCTGTGGGGCTTACACACATCATACGGCAGAACGA	1749
Db	1724	GTGGGAGCTGAAGAGGTGTGAGAGGGCGCTGTGGGGCTTACACACATCATACGGCAGAACGA	1783
OY	1750	CTGGAAGACCCGCGGCTATCGTCAACGGCATCGACCAACATGAGTGTGAACCCCGAGTGTGA	1809
Db	1784	CTGGAAGACCCGCGGCTATCGTGAACGGCATCGACCAACATGAGTGTGAACCCCTGAGTGTGA	1843
OY	1810	CGTCCACCTCAAGTGTGGAACGGCTACCACTTTCTCCCTGGGAGCGTGTGACTCCGGCAA	1863
Db	1844	CGTCCACCTGAAGTGTGGAACGGGTTACCACTTTCTCCCTGAAGAGCGTGTGACTCCGGCAA	1903
OY	1870	GGCGCAGTGCAGGAAGGCCCTTGACCGCGAGCTGTGGGCTGTGACGTTCCGCGCCAGTGTCC	1929
Db	1904	GGCGCAGTGCAGGAAGGCCCTTGACCGCGAGCTGTGGGCTGTGACGTTCCGCGCGAGTGTCC	1963
OY	1930	GCTGCTCGGCTTCAATCGCGCGCTGTGACGGGACAGAAAGGCGTGTGAGATCATCGCGAAGC	1989
Db	1964	GCTGCTCGGCTTCAATCGCGCGGCTGTGACGGGACAGAAAGGCGTGTGAGATCATCGCGAAGC	2023
OY	1990	CATGCTCTGAGTCTGTAGCGACAGAGATGTGCACTGTGTCAATGTGGGACACCGCGCCGACGA	2049
Db	2024	CATGCTCTGAGTCTGTAGCGACAGAGATGTGCACTGTGTCAATGTGGGACACCGCGCCGACGA	2083
OY	2050	CCTGAGAGACATGTGCGGCACTTGACGGGAGACCAACGAAAGTGTGCGCGGTGGT	2103

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Db      2084  CTTGGAGAGCATGCTGCAGACATTGACCGGGAGACACACGAAAGTGGCGGGTGGGT 2143
Oy      2110  GGGGTTCTCGGTGCGCTGCGCACCCGGATCACGCGGGGCCCGACGCGCTTCATATGCC 2169
Db      2144  GGGGTTCTCGGTGCGCTGCGCACCCGGATCACGCGGGGCCCGACGCGCTTCATATGCC 2203
Oy      2170  CTCCCGGTTCAGCGCGTGGCGGGTTGAACTACCTTTAAGCCATGGCGCTACGGGACCGTCC 2229
Db      2204  CTCCCGGTTCAGCGCGTGGCGGGTTGAACTACCTTTAAGCCATGGCGCTACGGGACCGTCC 2263
Oy      2230  CGTGTGCACCGCCGTGCGCGGGGTGAGGGAACACGTGCGCGCTTCGACCCCTTCACCA 2289
Db      2264  GGTGTGCACCGCCGTGCGCGGGGTGAGGGAACACGTGCGCGCTTCGACCCCTTCACCA 2323
Oy      2290  CTCCGCGCTCGGGTGGACGTTTCGACCGCGCGGAGCGCACAGCTGATCGAGCGCTCGG 2349
Db      2324  CTCCGCGCGCTCGGGTGGACGTTTCGACCGCGCGGAGCGCACAGCTGATCGAGCGCTCGG 2383
Oy      2350  GCACTGCTCTCCGACCTTACCCGGACACTACAGAGAGCTGAGAGGGGCTTCAGAGCGCGG 2409
Db      2384  GCACTGCTCTCCGACCTTACCCGGACACTACAGAGAGCTGAGAGGGGCTTCAGAGCGCGG 2443
Oy      2410  CATGTGCGAGGACTTACAGCTGGAGGACATCCGCGCAAGCTCTACGAGAGAGCTCTCTCAA 2469
Db      2444  CATGTGCGAGGACTTACAGCTGGAGGACATCCGCGCAAGCTCTACGAGAGAGCTCTCTCAA 2503
Oy      2470  GGCCAAATACCAATGTGTGAACGCTAGCTGACGCGCTCCAGCCCGCGCATGCTGATGC 2529
Db      2504  GGCCAAATACCAATGTGTGAACGCTAGCTGACGCGCTCCAGCCCGCGCATGCG---TGC 2555
Oy      2530  ATGAGAGGGTGGAACTGGCGATT-----GGCGCCGAGGAACTGGCCA 2572
Db      2556  ATGAGAGGATGGAATGTGGCAATTGGCACTTGCAAGATTGGCGACGAGGAACTGGCG 2615
Oy      2573  TCCCTTCGATGGGAGCGCGGCATCCGCGAGGTGCAAGTGAATGAGAGGTGTGTGTGT 2632
Db      2616  TCCCTTCGATGGAGAACCCCGGCATCCGCGAGGTGAGAACCTGATTCCGATCTGCTCCG 2675
Oy      2633  TGAGACGCTGATTCGATCTCGATCTGTGTCCGTAGACAGTAGAGCGGACGTAGGGAAGC 2692
Db      2676  TCGCAGAGTAAAGTGAAGAACGCTCCTGTGTGAGGATATATGGGAATGTTTTTTCCTTTT 2735
Oy      2693  GCTCCTTGTTCAGAGTATATGGGAATGTTCACACTGTGATATGTAGTTGTGTGTGT 2752
Db      2736  TTTTTCGAGGAGGATATATGGGAATGT---AACTGTGTATGTATATGTGTATGTGT 2792
Oy      2753  ATGCGTTATTCACA---ATGTGTACTTATTTCT---GTTAAGTCGAGGACAAAGGCG 2804
Db      2793  GTGCAATATACATCGGTTGTGTGTCTTATTTCTTACTAGTAAAGTCGAGGACCAAGAGC 2852
Oy      2805  GAAAGCTAGCTCACATG 2821
Db      2853  GAAAGCTAGCTCACATG 2869

RESULT 4
US-10-416-439C-4
; Sequence 4, Application US/10416439C
; Publication No. US20040199942A1
; GENERAL INFORMATION:
; APPLICANT: Commonwealth Scientific and Industrial Research Organisation
; APPLICANT: Morell, Matthew Kennedy
; APPLICANT: Batey, Ian Leslie
; APPLICANT: Topping, David
; TITLE OF INVENTION: BARLEY WITH REDUCED SEED ACTIVITY AND STARCH CONTAINING PRODUCTS
; TITLE OF INVENTION: REDUCED AMYLOPECTIN CONTENT
; FILE REFERENCE: 0070/70440
; CURRENT APPLICATION NUMBER: US/10/416,439C
; CURRENT FILING DATE: 2003-12-05
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 4

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Db      2077  GCAAGCTGGTGAATGCTGGGCGACCGGGCGCCACGACCTGGAGAGACATGTGCAACACTTGC 2136
Qy      2077  GCGGGAGGACCAACGACGAAAGTGTGCGGGGTGGGGGTTCTCCGTCGCGCTGGCCACCG 2136
Db      2137  GCGGAGGACCAACGACGAAAGTGTGCGGGGTGGGGGTTCTCCGTCGCGCTGGCCACCG 2196
Qy      2137  GATCAACGCGGGGCGCGGACGCGCTCTCTCAATGCTCCCGTTCCGCGTTCGAGCCGTGCGGTTGAA 2196
Db      2197  GATCAACGCGGGGCGCGGACGCGCTCTCTCAATGCTCCCGTTCCGCGTTCGAGCCGTGCGGTTGAA 2256
Qy      2197  CCAAGCTTAAACGCAATGCGCTTACGCGACCGTCCCGTTCGTCAGCGCGCTGCGGGGTAG 2256
Db      2257  CCAAGCTTAAACGCAATGCGCTTACGCGACCGTCCCGTTCGTCAGCGCGCTGCGGGGTAG 2316
Qy      2257  GGAACACGCGGCGCGGCTTCAACCGCTTCAACCGCTCCCGGCTCGGGGTGAGCGTTGACCG 2316
Db      2317  GGATACCGGCGCGGCTTCAACCGCTTCAACCGCTCCCGGCTCGGGGTGAGCGTTGACCG 2376
Qy      2317  CGCCGAGGCGCAACAGCTGATCGAGGCGCTCGGGGACTGCTCCGACCTTACCGGAGCTA 2376
Db      2377  CGCCGAGGCGCAACAGCTGATCGAGGCGCTCGGGGACTGCTCCGACCTTACCGGAGCTA 2436
Qy      2377  CAAGGAGAGCTGGAAGGGGCTTCCAGAGGCGCGCATGTGCGAGACTTCACTGGAGCA 2436
Db      2437  CAAGGAGAGCTGGAAGGGGCTTCCAGAGGCGCGCATGTGCGAGACTTCACTGGAGCA 2496
Qy      2437  TGCCGCGCAAGCTCTACAGAGGAGCTCTCTCTCAAGGCGCAAGTGAAGTGAAGCTGAGC 2496
Db      2497  TGCCGCGCAAGCTCTACAGAGGAGCTCTCTCTCTCAAGGCGCAAGTGAAGTGAAGCTGAGC 2552
Qy      2497  TGCTAAGCGGCTTCCAGCGCGGCTTCCAGAGGCGCGCATGTGCGAGACTGCTGAGCTT 2552
Db      2553  TGCTAAGCGGCTTCCAGCGCGGCTTCCAGAGGCGCGCATGTGCGAGACTGCTGAGCTT 2608
Qy      2553  TGCTAAGCGGCTTCCAGCGCGGCTTCCAGAGGCGCGCATGTGCGAGACTGCTGAGCTT 2659
Db      2609  ACTTCAGATTTGGGCGACGCGAGGAAAGTGCCTCTCTTGTATGAGAAAGCGCGCATTC 2668
Qy      2609  GCGAGGTGAGTGAATGAGATGAGATGATGTGTGAGAGCGCTGATTCGATTCGATTCG 2699
Db      2669  GCGAGGTGAGTGAATGAGATGAGATGATGTGTGAGAGCGCTGATTCGATTCGATTCG 2728
Qy      2669  GTCCGTGAGAGTGAAGGCGGACGTAAGGAGAGCGCTTCTTGTGAGAGTATAGGAAATG 2719
Db      2729  TTGCAAGTATATGGGAATGTTTTTTCCTTTTTTTTTTGGAGGAGTATAGGAAATG 2788
Qy      2729  TTGCAAGTATATGGGAATGTTTTTTCCTTTTTTTTTTGGAGGAGTATAGGAAATG 2788
Db      2789  TT---AACTGGTATGTATGTGTATGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTG 2845
Qy      2789  TTATTCCTT---GTTAAGTCGAGCAAAAGGCGAAAGCTAGCTACATG 2821
Db      2846  TTATTCCTTGTGTATGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTG 2895

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RESULT 5
US-10-416-439C-2

Sequence 2, Application US/10416439C
Publication No. US20040199942A1

GENERAL INFORMATION:

APPLICANT: Commonwealth Scientific and Industrial Research Organisation

APPLICANT: Morell, Matthew Kennedy

APPLICANT: Batey, Ian Leslie

APPLICANT: Topping, David

TITLE OF INVENTION: BARLEY WITH REDUCED SSII ACTIVITY AND STARCH CONTAINING PRODUCTS

TITLE OF INVENTION: REDUCED AMYLOPECTIN CONTENT

FILE REFERENCE: 0070/70440

CURRENT APPLICATION NUMBER: US/10/416,439C

CURRENT FILING DATE: 2003-12-05

NUMBER OF SEQ ID NOS: 14

SOFTWARE: Patentin version 3.1

SEQ ID NO 2

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; LENGTH: 2950
; TYPE: DNA
; ORGANISM: Hordeum vulgare
US-10-416-439C-2

Query Match      75.2%; Score 2138.4; DB 19; Length 2950;
Beet Local Similarity 87.6%; Pred. No. 0;
Matches 2517; Conservative 0; Mismatches 221; Indels 136; Gaps 11;

Qy      46  CCCGCGATCGTACATGCGCGCGCGCGATCCCGGCGCGCGCATGTGTCGCGCGTGC 105
Db      64  CCGCGCATCGTACATGCGCGCGCGCGATCCCGGCGCGCGCATGTGTCGCGCGTGC 123
Qy      106  GTCCGCGCGCTTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCT 162
Db      124  GTCCGCGCGCTTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCT 183
Qy      163  GCGGAGGTGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 222
Db      184  GCGGAGGTGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 243
Qy      223  GCGCGCGCGAGCGCAACGCTGCGGAGCGGAGGTGTGCGCGCGCGCGCGCGCGCGCG 282
Db      244  GCGCGCGCGAGCGCAACGCTGCGGAGCGGAGGTGTGCGCGCGCGCGCGCGCGCGCG 296
Qy      283  CCGGAGGTGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 342
Db      297  -----TCGACGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 345
Qy      343  CGCCACCAAGTGTGCGGAGCGGAGGATCCCGTCAAGCGCTGATCCCGAGCGCGG 402
Db      346  CGCCACCAAGTGTGCGGAGCGGAGGATCCCGTCAAGCGCTGATCCCGAGCGCGG 396
Qy      403  AGGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 462
Db      397  AGGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 456
Qy      463  CGGCAACGCGCGGTGAACGCTGAGAACAAATCTAACGCGCGCGCGCGCGCGCGCG 522
Db      457  CGGCAACGCGGTGAACGCTGAGAACAAATCTAACGCGCGCGCGCGCGCGCGCG 516
Qy      523  CGGCGTCCCGGCGACCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 582
Db      517  CGGCGTCCCGGCGACCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 576
Qy      583  CGGTAAACCAAGCTAAGTGTGCGCTGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 642
Db      577  CGGTAAACCAAGCTAAGTGTGCGCTGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 636
Qy      643  GGATTCGCGAGCTACATTTCCATCATGAGACAGGCGCGCGAGTCCGTTGTCACGCG 702
Db      637  GGGTTCGCGAGCTACATTTCCATCATGAGACAGGCGCGCGAGTCCGTTGTCACGCG 696
Qy      703  GAGCCCGCC----- 711
Db      697  GAGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 756
Qy      712  -----GCCGTGTCGCGGCTCAAAATTTGCTGAGTGTGCGGCTTGTGCTCCAG 756
Db      757  GCGCAAGAGAGCGCTGCGCGTGTGCGGCTCAAAATTTGCTGAGTGTGCGGCTTGTG 816
Qy      757  GCTGCAATTTGACAGCGATGTTGAACTGAACTGAAAGAGGTGCGTATGTCGAAAG 816
Db      817  GCTGCAATTTGACAGCGATGTTGAACTGAACTGAAAGAGGTGCGTATGTCGAAAG 876
Qy      817  AGCTCAAAACCAAGGCTCTTTTGGCGCGCTGCGAGCGCGCGCTGTAACAAGACCTTTG 876
Db      877  AGCTCAAAACCAAGGCTCTTTTGGCGCGCTGCGAGCGCGCGCTGTAACAAGACCTTTG 936
Qy      877  GGAATTCAGAAATATCATTTGCTTGTGAGAGGCGGTGAGGCGAAGATGATGCTCGCG 936
Db      937  GGAATTCAGAAATATCATTTGCTTGTGAGAGGCGGTGAGGCGAAGATGATGCTCGCG 996

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OY	9937	TGTTGACAGATGATGCGGGGCTCCTTGAACATACACGAACCAATGATTCGCCGACTTTGGC	996
Db	997	TGTTGACAGATGATGCGGGTTCCTTGAACATACACGAATCAATGATTCGCCGACTTTGGC	1056
OY	997	AGGGAGAGACGTCATGAACGTGTCGTGCTGCTGCTGATATTTCTCCCTGGTGCAGAAC	1056
Db	1057	AGGGAGAGAACGTCATGAACGTGTCGTGCTGCTGCTGATATTTCTCCCTGGTGCAGAAC	1116
OY	1057	AGGTGCTCTTGAGATGTTTGCCTGGTGCCTTGTGCCAAGCTTTGGCGAAGAGAGCATCG	1116
Db	1117	AGGTGCTCTTGAGATGATTTGCGGGTGTCTTGTGCCAAGCTTTGGCTAAGAGAGAGCATCG	1176
OY	1117	TGTTATGCTGTGTCATCAAGGTAATGGGACCTATATGAGAAAGCTTCAGATGTGCGAGTCCG	1176
Db	1177	TGTTATGCTGTGTCATCAAGGTAATGGGACCTATATGAGAAAGCTTCAGATGTGCGAGTCCG	1236
OY	1177	AAAACTACTACAAGGCTGCTGACAGAGATATGGAAGTGAATTTATTTCCATGCTTATATGCA	1236
Db	1237	AAAACTACTACAAGGCTGCTGACAGAGATATGGAAGTGAATTTATTTCCATGCTTATATGCA	1296
OY	1237	TGAGTGTGATTTTGTGTTCAATTGACGCTCTCTCTTCCGACACCGCACAGAAAGACATTTA	1296
Db	1297	TGAGTGTGATTTTGTGTTCAATTGACGCTCTCTCTTCCGACACCGCACAGAAAGACATTTA	1356
OY	1297	TGGGGGGACAGACAGAGAAATTAATGAAGCGCATGATTTTGTTCGCAAGGCGCGTGTGCA	1356
Db	1357	TGGGGGGACAGACAGAGAAATTAATGAAGCGCATGATTTTGTTCGCAAGGCGCGTGTGCA	1416
OY	1357	GGTTCCTTTGGCAGCTTCCATGCGGGGGGTGTCCTCTTATGCGGATGGAATCTGTGTTCAAT	1416
Db	1417	GGTTCCTTTGGCAGCTTCCATGCGGGGGGTGTCCTCTTATGCGGATGGAATCTGTGTTCAAT	1476
OY	1417	TGCAATGATTTGGCACACGGCACCTCTGCTGTATCTGAAGCATTTACAGGAGACA	1476
Db	1477	TGCAATGATTTGGCACACGGCACCTCTGCTGTATCTGAAGCATTTACAGGAGACA	1536
OY	1477	TGTTTGAATGACAGTACACTCGGTCATTAATGATATACATTAACATTCGCGCACAGGCGCG	1536
Db	1537	TGTTTGAATGACATTCAGTCGTCCTGTATATGATGATACATTAACATTCGCGCACAGGCGCG	1596
OY	1537	TGGCCCAAGTAGATGAATTCGCCGTTACACGAGTGTGCTAGGACCTACCTGGAACCTTCAG	1596
Db	1597	TGGCCCTGATGATGAATTCGCCGTTACACGAGTGTGCTAGGACCTACCTGGAACCTTCAG	1656
OY	1597	ACTGTACGACCCCGTGGGTGTGTAGACACGCCAATCACTTCCGCGCGCGCTGAAGATGGC	1656
Db	1657	ACTGTACGACCCCGTGGGTGTGTAGACACGCCAATCACTTCCGCGCGCGCTGAAGATGGC	1716
OY	1657	GGAACCAAGTTGTGTCGTGTAGAGCCCGGGTAACTGTGGAGGCTCAAGACGCTGTAGAGGCGG	1716
Db	1717	GGAACCAAGTTGTGTCGTGTAGAGCCCGGGTAACTGTGGAGGCTCAAGACGCTGTAGAGGCGG	1776
OY	1717	CTGGGGGGCTTACGACATCATACGCGCAAGACGCTGTGAAGAACCCCGCGCATGTCAACCG	1776
Db	1777	CTGGGGGGCTTACGACATCATACGCGCAAGACGCTGTGAAGAACCCCGCGCATGTCAACCG	1836
OY	1777	CATCGACAAATGAGAGTGAACCCCGAGGTGGAAGCTCAACCTCAAGTGTGCAACGCTACAC	1836
Db	1837	CATCGACAAATGAGAGTGAACCCCGAGGTGGAAGCTCAACCTCAAGTGTGCAACGCTACAC	1896
OY	1837	CAACTTCTTCCCTGGAGAGCGCTGGAATCTCCGACAGCGGCAAGGAGAGGAGGAGGAGGAGG	1896
Db	1897	CAACTTCTTCCCTGGAGAGCGCTGGAATCTCCGAGAGCGGCAAGGAGAGGAGGAGGAGGAGG	1956
OY	1897	CGAGCTGGAGCGTGAAGTCCGCGCGGACGTCGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG	1956
Db	1957	CGAGCTGGAGCGTGAAGTCCGCGCGGACGTCGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG	2016
OY	1957	CGGGCAGAAAGGCGCTGAGATATATCGCGGACGCGCATGTGCTGATATCTGACACCAAGAGT	2016
Db	2017	CGGGCAGAAAGGCGCTGAGATATATCGCGGACGCGCATGTGCTGATATCTGAGACCAAGAGT	2076
OY	2017	GCAAGCTGATCATGCTGGGACACCGGCGGACAGCAAGCTGTGAAGACATGCTGTGGGACACTTTCGA	2076

Db	2077	GCAGCTGTGATGCTGGGCA	CGGGGCGCCACGACTGGAGCATGCTTGACAGCACTTTCGA	2136
Qy	2077	GGGGGAGCA	CAACGACAGAGGTGCGCGGGTGGGTGGGTTCCTCGTGCCTGGCGCACCG	2136
Db	2137	GGGGGAGCA	CAACGACAGAGGTGCGCGGGTGGGTGGGTTCCTCGTGCCTGGCGCACCG	2196
Qy	2137	GATCAGCGGGGCGCGGAC	CGCGCTCTCATGCTCTCCCGGTTCCAGCCGTGGCGGTTGA	2196
Db	2197	GATCAGCGGGGCGCGGAC	CGCGCTCTCATGCTCTCCCGGTTCCAGCCGTGGCGGTTGA	2256
Qy	2197	CGAGCTTTAGCCATGAGCCCTA	AGGCAACCGTCCCGTGTGACGCGCGTGGGGGTGAG	2256
Db	2257	CCAGCTCTAGCGCATGAGCCCTA	AGGCAACCGTCCCGTGTGACGCGCGTGGGGGTGAG	2316
Qy	2257	GGACACCGTACCGCGCTTTCGAC	AGCCCTTCAACCACTCCGAGCTCGGGTGAAGTTGACCG	2316
Db	2317	GGATACCGTACCGCGCTTTCGAC	AGCCCTTCAACCACTCCGAGCTCGGGTGAAGTTGACCG	2376
Qy	2317	GCCCGAGCGCAC	AGAGCTGATGAGGCGCTCGGAGCACTGCTCCGACCTTACCGGAGCTA	2376
Db	2377	CGCCGAGCGCAC	AGAGCTGATGAGGCGCTCGGAGCACTGCTCCGACCTTACCGGAGCTA	2436
Qy	2377	CAAGGAGACTGAGAGGGGCTT	CCAGAGCGCGGCAATTCGAGAGACTTCACTGGGAGCA	2436
Db	2437	CAAGGAGACTGAGAGGGGCTT	CCAGAGCGCGGCAATTCGAGAGACTTCACTGGGAGCA	2496
Qy	2437	TGCGCGCAAGCTCTTACGAGGAC	GTCTCTCTCAAGGCGCAAGTACAGTGGTGAACGCTAGC	2496
Db	2497	TGCGCGCAAGCTCTTACGAGGAC	GTCTCTCTCAAGGCGCAAGTACAGTGGTGAACGCTAGC	2552
Qy	2497	TGCTAGCGCGCTCCAGCGCCCGCATG	CGTGATGAGAGGGTGAACCTGCGCATTTGCGC	2556
Db	2553	TGCTAGCGCGCTCCAGCGCCCGCATG	CGTGATGAGAGGGTGAACCTGCGCATTTGCGC	2608
Qy	2553	CC-----	-----GCAGGAACGTGCCATCTTCTTCGATGGGAGCGCCCGCATTC	2599
Db	2609	ACTTGCAGATTGCGCGCATG	CAGAGAACGTGCCATCTTCTTCGATGGGAGCGCCCGCATTC	2668
Qy	2609	GGGAGGTGAG-----	TGACATGAGAGGTGTGTGTGTGAGAGCGCTGATTCGATCTCGA	2655
Db	2669	GGGAGGTGAGAGCGCTGATTCGAT	GTGTGTGTGAGAGCGCTGATTCGATCTCGA	2728
Qy	2669	TCTGTGCTGTAGCAGAGTAGAGCGGAC	GTGAGGGAAGCGCTCTTGTGTCAGATATATGAG	2715
Db	2729	TTCGAGGTATATGAGGATGTTTT	TTTTTCTTTTTTTTTTTTGTGAGGAGGTATATGAG	2788
Qy	2716	AATGTTGCACTGTGATTTGATGTT	GCTATGTTGATGCGTTATACA---ATGTTG	2771
Db	2789	AATGTT---A	CTGTGATTTGATGTTGATGCTGTGTCATTTATACATCGGTTGTTG	2845
Qy	2772	TTACTTATCTT---	GTTAAGTCGAGGCAAGGCGGGAAGCAAGTACATCATG	2821
Db	2846	TTCCTTATCTTCTGCTAGCTA	GTGAGGCGCAAGGCGGGAAGCAAGTACATCATG	2899

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; LENGTH: 2951
; TYPE: DNA
; ORGANISM: Hordeum vulgare
US-10-416-439C-3

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Query Match	75.2%;	Score 2137.4;	DB 19;	Length 2951;
Best Local Similarity	87.5%;	Pred. No. 0;		
Matches 2517; Conservative	0;	Mismatches 221;	Indels 137;	Gaps 11

OY	46	CCCGGAGATCGATACCAATGCGCCGCGCCGAGATCCCGGCGCGGACATGCTCGCGGGCTGCG	105
Db	64	CCCGGCAATCGATACCGTGCACCGCCGCCCGATTCGCGCGCGCGCCATGCTGCGCGGGTCCG	123
OY	106	GTCGCGCGCGGTCTTTCCTCGCGCTCGCTCCGCGCTTCCCGCGAG--ATCAGCAGAGCG	162
Db	124	GTCCCCCGGCTCTTCTCTCGCGGTGCGTTCGCGCTCGCCCGGAGATCATCAGAGGAG	183
OY	163	GCGGAGGGTGAAGCGCGCGCCGACCCGACGCGGGGCGGAGGCTGCACTGGCGCGCTG	222
Db	184	GCGGAGGGTGGCGCGCTCGCCAAACCGCGCTGGGGCGGCGAGGCTTCAATGGCGGCGCTC	243
OY	223	GCGGCGGAGCGGCACGGCTGCGGAGGAGGTGGCGGCGCGCGCGCGCGGAGAAAGGA	282
Db	244	GCGGCTGCAGGCGCACGCTGCGGAGCGGGTGGCGCGCGCGCGCGCGGAG--	296
OY	283	GCGGAGGGTGCAGCAGACGCGCGCTCCGCGAGGACGCGCGCGCACGCGCGCGTGGCGC	342
Db	297	-----TGCAGACGCGCGCGCGCGGTAGGACGCCCGCGCTCGCGCTATGGCGC	345
OY	343	GCGCACCAAGGTTCGCGGAGCGGAGGATTCCTGTCAAGACGCTTGATGCGACGCGCGGA	402
Db	346	GCGCCACCAAGGTCTCGC-----GGATCCCGTCAAGACGCTTGATGCGACGCCCGCGA	396
OY	403	AGGTGGCGGCGCGGACCGCGCGGACACGAGAGGACGCGCGCGCGCTCACCGAGTATGA	462
Db	397	AGGTGGTGGGCGGTCCCCCGCGCACCGAGGACGCGCGCGCTGCGAGTAAAGAA	456
OY	463	GCGCACGCGCGGTGAACGGTGAGAACCAATCTACCGCGCGCGCGCGCGCGCACCAAGACAG	522
Db	457	GCGCACGCTGATCAACGGTGAAGAACAACTTACCGCGGCGGTGGGCGCATTAAGACAG	516
OY	523	CGGGCTGCCCGCACCCGCGACGCGCGGCCCATTCGCTGACCCAGACAGACTACAGTAA	582
Db	517	CGGGCTGCCCGCACCCGCGACGCGCGGCCCATTCGTAATCAGAACAGAGTACCGGTGA	576
OY	583	CGGTAAAAACAAGCTAAGTGGCGTGGCGCGGACGAGCATGACCGAGGTCTGGCTCC	642
Db	577	CGGTAAAAACAACATTAAGTGGCTGGCGCGCGGACGAGCATAGTAGTGGCTGCTCC	636
OY	643	GGATTCCGAGCTACCATTTCCATCAGTACAGAGCGCGGAGTCCGTTGCCAGCGA	702
Db	637	GGGTTCCGAGCTAATTTCCATCAGTAAACAAGTGGCGCGGTCCGTTGCCAGCGA	696
OY	703	GAGCGCGC-----	711
Db	697	GAAAGACGCGCGCTCGCTCGTTTTCCCGGACAAAGAGCGCGCGCTGCTCGTTGTC	756
OY	712	-----GCGCTGCGCGGCTCAATTTCTGAGTCTCGGCTTCTGCTCCAG	756
Db	757	GCGCAAGAGACGCTGCGCTGCTCGCGCTCAATTTTGTCTCTCGGCTCTGCTCCAG	816
OY	757	GCTGACATTGACAGCGATGTTGAACCTGAACGAGAGAGGTGCGGTCACTGCTCAGA	816
Db	817	GCTGGACATGTCAGGAGTGTGAATTTCACAGAAAGAGATGCCGTGATTTGTCAAGA	876
OY	817	AGCTCCAAACCAAGAGCTTTTCGCGCGCTGAGGCTCCCGCTGTACAAGAGACCTTTG	876
Db	877	AGCTCCAAACCAAGAGCTTTTCGCGCGCTGAGGCTCCCGCTGTACAAGAGACCTTTG	936
OY	877	GGACTTCAAGAAATACATTGGCTTCAGAGAGCCCGTGAAGGCTCAAGATGATGGCTGCG	936
Db	937	GGAATTTCAAGAAATACATTGGTTTCAGAGAGCCCGTGAAGGCTCAAGATGATGGCTGCG	996

QY	937	AGTTGCAAGATGATGCGGGGCTCCCTTGAACATCAACGAAACATGATTCGGGACCTTTGGC	996
Db	997	TGTTGACGATGATCCGGGATTCCTTTGAACATCAACGAAACATGATTCGGGACCTTTGGC	1056
QY	997	AGGGAGAACGTCATGAAACGTGAGTCGTGCGAGCTCGATATGTTCTCCCTGATGCAAAAC	1056
Db	1057	AGGGAGAACGTCATGAAACGTGAGTCGTGCGAGCTCGATATGTTCTCCCTGATGCAAAAC	1116
QY	1057	AGTGGTCTTGAGATGTTGCGGTCGTTTGCCCAAGGCTTTGGCGAAGAGACATCG	1116
Db	1117	AGTGGTCTTGAGATGTTGCGGTCGTTTGCCCAAGGCTTTGGCTAAGAGAGACATCG	1176
QY	1117	TGTTATGTCGTGTGTACCAAGATATGGGAGCTATGAGGAAAGCCCTAAGATGTCGAGTCG	1176
Db	1177	TGTTATGTCGTGTGTGTACCAAGATATGGGAGCTATGAGGAAAGCCCTAAGATGTCGAGTCG	1236
QY	1177	AAATATCTACAAAGGCTCTGGAACAGATATGAGAGTAATTTATTCATGCTTATATCGA	1236
Db	1237	AAATATCTACAAAGGCTCTGGAACAGATATGAGAGTAATTTATTCATGCTTATATCGA	1296
QY	1237	TGAGTTGATTTTGTGTTCAATTGACGCTCTCTTCGCAACACGCGCAGGAAACATTTA	1296
Db	1297	TGAGTTGATTTTGTGTTCAATTGACGCTCTCTTCGCAACACGCGCAGGAAACATTTA	1356
QY	1297	TGGGGGACGACGACAGAAATTTAAGACGATATTTGTTCTGCAAGCCCGCTGTGCA	1356
Db	1357	TGGGGGACGACGACAGAAATTTAAGACGATATTTGTTCTGCAAGCCCGCTGTGCA	1416
QY	1357	GGTTCCTTGGACGTTCCATGCGCGCGGTCGCTTATGAGGAGTGGAAATCGGAGTTAT	1416
Db	1417	GGTTCCTTGGACGTTCCATGCGCGCGGTCGCTTATGAGGAGTGGAAATCGGAGTTAT	1476
QY	1417	TGCAATATGATTGGACACGCGACCTCTGCTGTCTATCTGAAAGCATATTAACAGGACCA	1476
Db	1477	TGCAATATGATTGGACACGCGACCTCTGCTGTCTATCTGAAAGCATATTAACAGGACCA	1536
QY	1477	TGTTTGTATGCAATACACTGCGTTCATTAATGATGATACATACATCGCGCACCAAGGCGG	1536
Db	1537	TGTTTGTATGCAATACACTGCGTTCATTAATGATGATACATACATCGCGCACCAAGGCGG	1596
QY	1537	TGGGCCAGTATGTAATTTCCGTTCAACCGAGTTCCTGAGACATACCTGGAAACCTTCAG	1596
Db	1597	TGGGCCAGTATGTAATTTCCGTTCAACCGAGTTCCTGAGACATACCTGGAAACCTTCAG	1656
QY	1597	ACTGTACGACCCCGTGGGTCGTGAGCAGCGCACTTCTGCGCGCGGCTGTGAAGATGCG	1656
Db	1657	ACTGTACGACCCCGTGGGTCGTGAGCAGCGCACTTCTGCGCGCGGCTGTGAAGATGCG	1716
QY	1657	GGACCAAGTGTCTGTGTGAGCCCCCGGGTACTGTGGAGCTCAAGCGGTGAGGGCGG	1716
Db	1717	GGACCAAGTGTCTGTGTGAGCCCCCGGGTACTGTGGAGCTCAAGCGGTGAGGGCGG	1776
QY	1717	CTGGGGGCTTACAGCAATCATACGGGCAAGACGTGGAACACCGCGGCAATCGTCAACGG	1776
Db	1777	CTGGGGGCTTACAGCAATCATACGGGCAAGACGTGGAACACCGCGGCAATCGTCAACGG	1836
QY	1777	CATCGACAACTGAGTGTGAAACCCCGAGTGTGACGTCACTCAAGTCGAGACGGCTACAC	1836
Db	1837	CATCGACAACTGAGTGTGAAACCCCGAGTGTGACGTCACTCAAGTCGAGACGGCTACAC	1896
QY	1837	CAACTTCTCCCTGAGGACGCTGACCTCCGGCAAGCGGCACTGCAAGGACCTCTGACGG	1896
Db	1897	CAACTTCTCCCTGAGGACGCTGACCTCCGGCAAGCGGCACTGCAAGGACCTCTGACGG	1956
QY	1897	CGAGCTGGGCTGTGAGGTCGCGCGCGACGTGCGCTGCTGGGCTTCAATCGGCGGCTTGA	1956
Db	1957	CGAGCTGGGCTGTGAGGTCGCGCGCGACGTGCGCTGCTGGGCTTCAATCGGCGGCTTGA	2016
QY	1957	CGGGGAGAAAGGCGTGGAGATCATCGGAGACGCAATGCGCTGGAATCTGTAGCCAGAGCGT	2016
Db	2017	CGGGGAGAAAGGCGTGGAGATCATCGGAGACGCAATGCGCTGGAATCTGTAGCCAGAGCGT	2076
QY	2017	GCACCTGGTATGCTGGGACCCGCGCCCAACGACTTGAAGACATGCTGCGGACCTTCGA	2076

Db 1035 GATCTGAACGAACCGGAGCCGCGAGGATGCGATGACGATGACTGAGGCTGATTCA 1094
Qy 944 GATGATGGGGGCTCTTTGAACATACACGAACCATGATTCGGACCTTTGGCAGGGAG 1003
Db 1095 GATGCTGAGATTCC--TGAGATCGACGAGTGAAGATTCGGGCCCTTTGGCTGGGAG 1151
Qy 1004 AACGTCATGAACGTGGTGTCTGGCTGTGTAATGTTCTCCCTGGTGCMAAACAGATGAT 1063
Db 1152 AATGTCATGAACGTATGCTGTGTGGCTGTGTAATGTTCTCCCTGGTGCMAAACAGATGAT 1211
Qy 1064 CTGGAGATGTTGCGGCTCTTTGCGCAAGCTTTGGCGAAGAGAGCATGCTGTATG 1123
Db 1212 CTGGAGATGTTGCGGCTCTTTGCGCAAGCTTTGGCGAAGAGAGCATGCTGTATG 1271
Qy 1124 GTTGCTGATACCAAGTATGGGAGCTATGAGAGAGCTACAGATGTGGAGTCCGAATAAC 1183
Db 1272 GTTGCTGATACCAAGTATGGGAGCTATGAGAGAGCTACAGATGTGGAGTCCGAATAAC 1331
Qy 1184 TACAAGGCTGTGACAGAGATATGGAAGTAATTTCCATGCTTATATGATGAGATT 1243
Db 1332 TACAAGGCTGTGACAGAGATATGGAAGTAATTTCCATGCTTATATGATGAGATT 1391
Qy 1244 GATTGTTGTTCAATTGACGCTCTCTCTCCGACACCGCGCAGAAAGACATTTATGGGGC 1303
Db 1392 GATTGTTGTTCAATTGACGCTCTCTCTCTCCGACACCGCGCAGAAAGACATTTATGGGGG 1451
Qy 1304 AGCAGACGAGAAATTATGAGAGCGCATGATTTTGTCTGCAAGCGCTGTGAGGTTCT 1363
Db 1452 AACGACGAGAAATCATAGAGGCAATGATTCGTTTGTAAAGGCTGTGAGGTTCT 1511
Qy 1364 TGGCAGCTTCATGCGGGGCTGCTCCCTATAGGGAGTGAATACTGGTCTTTATTTGCAANT 1423
Db 1512 TGGCAGCTTCATGCGGGGCTGCTCCCTATAGGGAGTGAATACTGGTCTTTATTTGCAAAC 1571
Qy 1424 GATTGGCAGACGCGACCTCTGCTGTCTATCTGAAGCATATTAACAGGACCATGTTG 1483
Db 1572 GATTGGCAGACGCGACCTCTGCTGTCTATCTGAAGCATATTAACAGGACCATGTTG 1631
Qy 1484 ATGCACTACCTCGGCTCATATGCTGATATCAATTAACATCGCGCACAGGCGCTGGCCCA 1543
Db 1632 ATGCACTACCTCGGCTCATATGCTGATATCAATTAACATCGCGCACAGGCGCTGGCCCA 1691
Qy 1544 GTAGATGAATCCGCTTACCGAGTGTGCTGACCTACCTGAGCACTTGAAGCTGTAC 1603
Db 1692 GTAGATGAATCCGCTTACCGAGTGTGCTGACCTACCTGAGCACTTGAAGCTGTAC 1751
Qy 1604 GACCCCGTGGTGTGAGCAGCCCACTACTTCGCGCGCGCTGAAAGATGGCGGACGAG 1663
Db 1752 GACCCCGTGGTGTGAGCAGCCCACTACTTCGCGCGCGCTGAAAGATGGCGGACGAG 1811
Qy 1664 GTTGTCTGTGAGCCCCCGGTAACCTGTGGAGCTCAAGACGCTGAGAGGCGCTGGGGG 1723
Db 1812 GTTGTCTGTGAGCCCCCGGTAACCTGTGGAGCTCAAGACGCTGAGAGGCGCTGGGGG 1871
Qy 1724 CTTCACGACATCATACCGGAGAAAGCACTGGAAGACCCCGGCACTGTCAAGGCTGAC 1783
Db 1872 CTTCACGACATCATACCGGAGAAAGCACTGGAAGAAAGACCGGCACTGTCAAGGCTGAC 1931
Qy 1784 AACATGAGTGAACCCCGAGGTGAGCTCAACTCAAGTGGAGCGCTACACCACTTC 1843
Db 1932 TACCGGAGATGGAACCGGAGGTGAGCTGACCTGCAAGTCCGACGCTTACGCCACTAC 1991
Qy 1844 TCCTTGGGAGCGTGAATCTCGGCAAGCGGCAAGTGAAGAGGCGCTTACGCGGAGCTG 1903
Db 1992 ACCGTGGCTGCTGAGATCTCAGCAAGCGCGGTGCAAGCGGCGCTCAGCGGAGCTG 2051
Qy 1904 GGCTTGAAGTCCCGCGCGAGAGTGGCGGCTGCTCGGCTTCACTGCGCGCTGGAAGAG 1963
Db 2052 GGCGTGAAGTCCCGCGCGAGAGTGGCGGCTGCTGATCGGCTTCACTGCGGCGCTGAGCGGAG 2111
Qy 1964 AAGGCGTGAAGTCACTGCGGAGCGCAATGCTTGGATCTGAGACAGAGCTGCGAGCTG 2023

Db 2112 AAAGGTGTGACATCATCGGCGAGCGGATGCGGTGATTCGCGGGCAGAGCGTGCAGCTG 2171
Qy 2024 GTCATGTGGGACCGGCGCGCACGACCTTGAAGACATGCTCGGCACTTGGAGGGAG 2083
Db 2172 GTGCTGTGGGCTCGGCGCGCGCACCTTGAAGTGAATGCTGACAGCGGTTGCAAGCGGAG 2231
Qy 2084 CACCAAGCAAGAGTGCAGGAGTGGAGGTTCTCCGTGCGGCTGCGGACCGAGATCACG 2143
Db 2232 CACCAAGCAAGAGTGCAGGAGTGGAGGTTCTCCGTGCGGCTGCGGACCGAGATCACG 2291
Qy 2144 GCGGCGCGTGAAGCGCTCTCATGCTCTCCGTTTGAAGCGGTGCGGTTGAACGAGCTT 2203
Db 2292 GCGGCGCGTGAAGCGCTCTCATGCTCTCCGTTTGAAGCGGTGCGGTTGAACGAGCTT 2351
Qy 2204 TACGCAATGGCTTACAGGACCGTCCCGTCTGTGACAGCGGCTGCGGAGTGAAGGACACC 2263
Db 2352 TACGCAATGGCTTACAGGACCGTCCCGTCTGTGACAGCGGCTGCGGAGTGAAGGACACC 2411
Qy 2264 GTGCGCGGTTGACAGCGCTTCAACCACTCGGAGCTCGGAGTGAAGTGAACCGGAG 2323
Db 2412 ATGTGCGGCTTGAAGCGCTTGAAGACACCGGCTCGGAGTGAAGTGAACCGGAG 2471
Qy 2324 GCGCAAGCTGATGAGAGCGCTCGGAGCTGCTCGGACCTTACCGGAGTGAAGGAG 2383
Db 2472 CGGCAAGCTCATGAGAGCGCTCGGAGCTGCTCGGAGTGAAGTGAACCGGAG 2531
Qy 2384 AGCTGAGAGGCTTCAAGAGCGGAGCTGCTGAGAGCTTCAAGTGAAGTGAAGTCCGCC 2443
Db 2532 AGCTGAGAGGCTTCAAGAGCGGAGCTGCTGAGAGCTTCAAGTGAAGTGAAGTCCGCC 2591
Qy 2444 AAGCTTACGAGAGCGTCTCTCAAGGCGAAGTACAGTGGTGA 2489
Db 2592 GAGCTTACGAGAGGCTTGTGACAGGCGAAGTACAGTGGTGA 2637

RESULT 9
US-10-260-238-1034
; Sequence 1034, Application US/10260238
; Publication No. US20040016025A1
; GENERAL INFORMATION:
; APPLICANT: Budworth, Paul R.
; APPLICANT: Moughamer, Todd G.
; APPLICANT: Briggs, Steven P.
; APPLICANT: Cooper, Bret
; APPLICANT: Glazebrook, Jane
; APPLICANT: Goff, Stephen A.
; APPLICANT: Katagiri, Fumiyaki
; APPLICANT: Krebs, Joel
; APPLICANT: Provart, Nicholas
; APPLICANT: Rieke, Darrell
; APPLICANT: Zhu, Tong
; TITLE OF INVENTION: PROMOTERS FOR REGULATION OF PLANT EXPRESSION
; FILE REFERENCE: 60111-NP
; CURRENT APPLICATION NUMBER: US/10/260,238
; CURRENT FILING DATE: 2002-09-26
; PRIOR APPLICATION NUMBER: US 60/325,448
; PRIOR FILING DATE: 2001-09-26
; PRIOR APPLICATION NUMBER: US 60/325,277
; PRIOR FILING DATE: 2001-09-26
; PRIOR APPLICATION NUMBER: US 60/370,620
; PRIOR FILING DATE: 2002-04-04
; NUMBER OF SEQ ID NOS: 6077
; SEQ ID NO 1034
; LENGTH: 2412
; TYPE: DNA
; ORGANISM: *Oryza sativa*
US-10-260-238-1034

Query Match 43.6%; Score 1238.6; DB 17; Length 2412;
Best Local Similarity 71.7%; Pred. No. 0;
Matches 1733; Conservative 0; Mismatches 624; Indels 60; Gaps 6;
Qy 105 GGTGCGCGGCTCTTCTGCTGCGCTGCGCTCGGCTCTCGGAGATCAAGCAGGGGG 164

Db 23 CATCCACCACTTCTCGTCGCTGCTCTTCGGCGTCACGCGGAGGAGCCCAAGAGAG 82
Qy 165 CGAGGTGAGC-----GGGCGCCACCCCAAGCCCGGAGCGCGCAGGC 206
Db 83 GAGAGGTGTGGCGTGGCCGCGCGCGCGCCCTCTTTACGACGCGCGCGGAGAGGC 142
Qy 207 TGCACGTGGCCGCGTGGCCGCGCGCAGCGCACCGCTTCGCGACGAGAGTGTGGCGCGCG 266
Db 143 TAGCCCTAAGGGGCGCGCTCCGCCCGGCTCGGCGTGGAGATGGCGGCGTGG 202
Qy 267 CCGCGGGAAGAGACGCGAGGCTGCACGACGCGCGCTCCGCGAGGACGCCCGCG 326
Db 203 TCGCGCGCGGATGATGGGAGAAAGAGCGCGCGTGGAGCGGCGGCTGAGGACGACG 262
Qy 327 CACGCGCGGTGGCGCGCCGACCAAGGTGGCGAGCGAGGAGTCCCGTCAAGAGCGTGG 386
Db 263 ACGAGAGAGAGATTTCTTCTGGGCGCTGGAGCGCCCGCGCTGGCGTGGCGCGCT 322
Qy 387 ATCGGACGCGCGGAGAGGTGGCGCGCGCACCGCGGCAACGAGGACGAGCGCGCC 446
Db 323 TCGGCAAGTCTTTGAAGCGGAGGGGACCGTCCCGCGCTCGGCGGTACGGCTCCGGCG 382
Qy 447 GTCCACCGAGTATGAACGGCGACGCGGTGAACGCTGAGAACAAATCTACCGCGCGCG 506
Db 383 GTGATCGGCGAGAGTGGCGGGGCGCGCGCGCGCGCGCGCGCGACACAGGACGCGCG 442
Qy 507 GCGCGACCAAGACAGCGCGGCTGCCGCGCACCGCGCGCGCGCGCGCGCGCGCGCGAG 566
Db 443 CTTCAAGTAAAGACGAGCGCTTCTACGCGCGCGCGACGACACACACTGCTTACGGGA 502
Qy 567 ACAGAGTACAGTGAACGCTGAAACCAAGCTAACGTGCTGCGCTGCGCGCGACGAGATAG 626
Db 503 ACGGATCGGTGTTACCGCGCGCGACCAAGCTGCGCGCGCGCAAGCGCGCGGTACCATTA 562
Qy 627 CCGAGTGTGGCTCCGGATTCGCGAGCTAACATTTCACTAGTGAAGAGC---GCCGG 683
Db 563 CGAAGCTCCACGCGCGGACTCCCGGTGATCTTCATCGTAAACAAGCGCGAGCGCG 622
Qy 684 ACTCGGTTGTCAGCGCGAAGCGCGCGCGTGGCTGCGGCTCAATTGCGTGGCTGG 743
Db 623 ACTTGATATCCCAAGCGGACGCGCGCGCGCGCGCGCGCGCGCGCGGTCAAAATCCAGGT 682
Qy 744 CTTTGTCTCCAGGCTGCATTTGACAGCGATGTTGAACCTGAACCTGAAGAGGTCGCG 803
Db 683 CGTCCGCTCTCTCCCAAGCCTGACA---ATTGGAATTTGAGAGGATTAAGAGCGAA 739
Qy 804 TCATGTCGAAGAAGCTCCAAACCCAAAGGCTTTTCGCCGCTGACGCCCGCTGTAC 863
Db 740 AAGTTGTGAGAGTGTCTCGAAGCCAAAGCGCACTGATCTTCCCTATTTCTGCGGTAG 799
Qy 864 AAGAGAGCTTTGGGACTTCAAGAAATACATTTGCTTGAGAGACCGGTGGAGCGCAAG- 922
Db 800 AAGAGAGACGTGGGATTTCAAGAAATATTTGATCTGAACGAACCGGACGCGCGAGG 859
Qy 923 -----GATGATGCTGGGCTGTGTGACAGATATGCGGCTCTTTGAACATCAC 971
Db 860 ATGGCGATACGATGATGATGATGCGGTGATTCAGATCGTCAGATTC---TGAGATGAC 916
Qy 972 AGAACCATATTCGCGACCTTTGGCAGGAGAAAGCTCATGAACGTGCTGCTGGCTGG 1031
Db 917 AAGATGACATTCGAGGCCCTTTGGCTGGGAGAAATCATGAACGTGATCGTGGCTGG 976
Qy 1032 CTGAATGTTCTCCCTGTGCAAAACAGGTGCTTGGAGATGTGCGGTCGTTGGCCCA 1091
Db 977 CTGAAT-----GTGGGCTTGAAGATGTTGAGAGTGTTCATTCCTTA 1015
Qy 1092 AAGCTTTGGCGAAGAGACATCGTGTATGTTGTGTTGTTGTTGTTGAGTTGAGGACTATG 1151
Db 1016 AAGCTTTGGCGAAGAGACATCGTGTATGTTGTGTTGTTGTTGTTGTTGTTGTTGTTG 1075
Qy 1152 AAGAACCTTACGATGTGAGTTCGAAATACTACAAAGCTGCTGAGACGATATGAGAG 1211
|||||

Db 1076 CGGAAGCCAGAGATGAGAAATCAGAAATATCTACAAAGCTGTGGACAGATCTGGAAG 1135
Qy 1212 TGAATTTATTCATGCTTATATTCAGATGAGATTGATTTTGTGTTCAATGACGCTCTCT 1271
Db 1136 TGAATTTATTCATGCTTATATTCAGATGAGATTGATTTTGTGTTCAATGACGCTCTCT 1195
Qy 1272 TCCGACCGCCAGAGACATTTATGGGCGACAGACAGAAATTTATGAAGCGCATGA 1331
Db 1196 TCCGTCACGTCAGATGACATCTATGGGGGAACAGACAGAAATCATGAAGCCCATGA 1255
Qy 1332 TTTTCTTCGGAAGGCGCTGTGAGGTTCTTTGSCAGGTTCCATGGGCGGTGCCCT 1391
Db 1256 TTTGTTTGTAGGCTCTGTGAGGTTCTTTGSCAGGTTCCATGGGCGGTGCCCT 1315
Qy 1392 ATGGGATGAGAAATGTGTTTATTTGCAAAATGATTTGGCACAGGCACTCTGCTGCT 1451
Db 1316 ATGGGATGAGCACTTGGTGTCTTTCGAAAGATTTGGCACATGCACTCTGCTGCTGTT 1375
Qy 1452 ATCTGAAGCATATTTACAGGAGCCATGGTTGATGACATGACATCTGCTCATATGTGA 1511
Db 1376 ATCTGAAGCATATTTACAGAGCAATGGCATGATGACATGACATCTGCTCATATGTGA 1435
Qy 1512 TACATTAATGCGCGACAGAGGCGGTGGCCAGTATGAATTTCCCGTTCAACGAGTGG 1571
Db 1436 TACATTAATGCTTTACAGAGGCGGTGGCCAGTATGAATTTCCCTTACATGGAATTC 1495
Qy 1572 CTGAGCACTACCTGGAACATTTACAGATGTATGACAGCCCGTGGTGTGAGACGCAACT 1631
Db 1496 CGAGACCTACTGATGATCTTCAAGCTGTATGACAGCCCGTGGCGGAGACGCAACA 1555
Qy 1632 ACTTGGCGCGGCTGAAATGCGGACCAAGTTGTGTGTGAGCCCGGATCTGT 1691
Db 1556 TCTTGGCGCGGCTGAAATGCGGAGACCGGTGTGTATCCGTGAGCCCGGCTACTCT 1615
Qy 1632 GCGAGCTGAAGCGGTGAGAGGCGGCGGCTTACAGACATCATATGCGGAGAGACT 1751
Db 1616 GCGAGCTGAAGCGAGAGGCGGCTGAGGCTTCAAGACATCATATGAGGAGAGACT 1675
Qy 1752 GGAAGACCGCGGCTGCTCAACGCGCATGCAACAATGAGTGAACCCCGAGTGAAG 1811
Db 1676 GGAAGATGAACGCGATCTGTAAGCGGCACTGACATACGGGAGTGAACCCCGAGTGAAG 1735
Qy 1812 TCCACCTGAGTGGAGCGCTTACACCACTTCTCCCTGGGAGCGTTGACTCCGCAAGC 1871
Db 1736 TGCACCTGAGTGGAGCGCTTACCGCACTACACGCTGGCTCGCTGAGCTTCAACAAAGC 1795
Qy 1872 GCGACTGCAAGAGGCGCTTGAAGCGCGGAGCTGGGCTGCAAGTCCGCGCGGAGCGCG 1931
Db 1796 GCGGTTGCAAGGCGGCTGCAAGCGGAGCTGGGCTGAGGTTGCGCAAGCATGTCGCG 1855
Qy 1932 TGCCTGCTTCAATCGGCGCGCTGAGCGGAGAGAAAGGCTGGAGATCATTCGCGAGCGCA 1991
Db 1856 TGAATGGGTTTATCGGGGCGCTGCAAGCGGAGAAAGTGTGACATCATCGGCGAGCGGA 1915
Qy 1992 TGCCTGATCGTGAAGCCAGAGCGTGAAGCTGTGATGATCTGTGGCAACCGGCGCACAGC 2051
Db 1916 TGCCTGATGCGCGGAGAGAGCGTGAAGCTGTGCTGCTGGGCTCCGCGCGCGCGAGC 1975
Qy 2052 TGAAGAGCATGTGCGGCACTTTCAGCGGAGACCAAGCAAGATGAGGCGGAGTGGTGG 2111
Db 1976 TGAAGATGATGTGCAAGGTTTCAGGCGCGAGCAACAAGCAAGATGAGGCGGAGTGG 2035
Qy 2112 GGTTCCTGCGTGGCGCTGCGCACCGGATTCAGCGGAGCGCGGCTCTCATGTCCT 2171
Db 2036 GGTTCCTGCGTGAAGTGGCGCACCGGATTCAGCGGAGCGCGGCTCTCATGTCCT 2095
Qy 2172 CCGGTTGAGCGCTGCGGAGTTGAACAGCTTTACGCAATGCTTACCGGCGACCGTCCCG 2231
Db 2096 CCGGTTGAGCGCTGCGGAGTTGAACAGCTTTACGCAATGCTTACCGGCGACCGTCCCG 2155
Qy 2232 TGTGCAAGCGCGTGGCGGAGTGAAGGACACGCTGCGCTTTCGACCCCTTCAACCACT 2291
Db 2156 TGTGCAAGCGCGTGGCGGAGTGAAGGACACGCTGCGCTTTCGACCCCTTTCGAGGACA 2215
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QY 2292 CCGGCTCGGGTGAAGCTTTCGACGCGCGGAGCGGACAAAGCTGATCGAGGGGCTCGGGC 2351
| | | | |
Db 2216 CCGGCTCGGGTGAAGCTTTCGACGCGCGGAGCGGACAAAGCTGATCGAGGGGCTCGGGC 2275
| | | | |
QY 2352 ACTGCTCCGACCTACCGGGACTACAAAGAGCTGAGGGGCTCCAGAGGCGCGCA 2411
| | | | |
Db 2276 ACTGCTCGAGACGTAACCGCAAGTACAAAGAGAGCTGAGGGGTTTCAAGGTGCGCGCA 2335
| | | | |
QY 2412 TGTGCGAGGACTTCACTGCGGAGCATGCGCCCAAGCTTACGAGAGACCTCTCTCAAG 2471
| | | | |
Db 2336 TGTGCGAGGACTTCACTGCGGAGCATGCGCCCAAGCTTACGAGAGAGGCTCTCTCAAG 2395
| | | | |
QY 2472 CCAAGTACCAAGTGA 2488
| | | | |
Db 2396 CCAAGTACCAAGTGA 2412
| | | | |
RESULT 10
US-10-336-753-50
; Sequence 50, Application US/10336753
; Publication No. US20030226176A1
; GENERAL INFORMATION:
; APPLICANT: Guan, Hanping
; APPLICANT: Keeling, Peter L.
; TITLE OF INVENTION: PLANT LIKE STARCHES AND THE METHOD OF MAKING THEM IN
; FILE REFERENCE: 2461-52
; CURRENT APPLICATION NUMBER: US/10/336,753
; PRIOR FILING DATE: 2003-01-06
; PRIOR APPLICATION NUMBER: US/09/402,254
; PRIOR FILING DATE: 1999-10-01
; PRIOR APPLICATION NUMBER: PCT/US98/06660
; PRIOR FILING DATE: EARLIER FILING DATE: 1998-04-03
; PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 60/042,939
; PRIOR FILING DATE: EARLIER FILING DATE: 1997-04-04
; NUMBER OF SEQ ID NOS: 77
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 50
; LENGTH: 2010
; TYPE: DNA
; ORGANISM: Zea mays
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1)..(2010)
US-10-336-753-50
Query Match 43.4%; Score 123.2; DB 17; Length 2010;
Best Local Similarity 84.3%; Pred. No. 0;
Matches 1388; Conservative 0; Mismatches 258; Indels 0; Gaps 0;

Db 665 ATGGGACTATATGGAAGCTTTGATATGGAATCCGGAATACTACAAAGCTCAGGAC 724
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QY 1200 AGGATATGAAGTGAATTAATTTCCATGCTTAATACATGAGAGTGAATTTCTGATATG 1259
| | | | |
Db 725 AGGACTGAAGTGAATTAATTTCCATGCTTAATACATGAGAGTGAATTTCTGATATG 784
| | | | |
QY 1260 ACGCTCTCTTCCGACACCGCAGGAAGACATTTATGAGGGGAGCAGACAGGAATTA 1319
| | | | |
Db 785 ATGCCCCCTTTTCCGACACCGTCAAGATGACATATATGAGGAGATGAGGAGGAATCA 844
| | | | |
QY 1320 TGAAGCGATGATTTTGTTCGAAGGCGCTGTGAGATTCCTTGGCAGCTTCATGCG 1379
| | | | |
Db 845 TGAAGCGATGATTTTGTTCGAAGGCGCTGTGAGATTCCTTGGCAGCTTCATGCG 904
| | | | |
QY 1380 GCGGTTCCTTATGAGGATGGAATCTGATGTTTATTCGAATGATGGACACGCGAC 1439
| | | | |
Db 905 GTGTGTGTGTACGAGATGGAATTTGTGTTCATTTGCCAATGATGGACACTGAC 964
| | | | |
QY 1440 TCCGCGCTGCTATCTGAAGCATATTAAGGACCAATGTTGATGACATGACCTGCGT 1499
| | | | |
Db 965 TCCGCGCTGTTTATCTGAAGCATATTAAGGACCAATGTTGATGACATGACCTGCGT 1024
| | | | |
QY 1500 CCATTATGATGATACATTAACATCGGACCAAGGCGGTGCGCCAGTATGATTAATCCCGT 1559
| | | | |
Db 1025 CCGTCTGTGATACATTAACATCGGACCAAGGCGGTGCGCCAGTATGATTAATCCCGT 1084
| | | | |
QY 1560 TCACCGAGTTGCTGAGACCTACCTGGAACATTCGACATGACACCCGTGGTGTG 1619
| | | | |
Db 1085 ACATGAGCTTGCTGAACACTACCTTCAACATTTGAGCTGTACATCCCTCGGTGCG 1144
| | | | |
QY 1620 AGCAGCGCACTATCTTGCGCGCGCGCGGAGATGGGAGACAGATGCTGTGTGAGGCG 1679
| | | | |
Db 1145 AGCAGCGCACTATCTTGCGCGCGCGCGGAGATGGGAGACAGATGCTGTGTGAGGCG 1204
| | | | |
QY 1680 CCGGATCTGTGAGACCTCAAGACGCTGAGGCGCGCTGCGGCTTCAACGACATCATAC 1739
| | | | |
Db 1205 GCGGCTACTGTGAGACCTCAAGACGCTGAGGCGCGCTGCGGCTTCAACGACATCATAC 1264
| | | | |
QY 1740 GGCAGAACGACTGGAAGACCCGCGCATCTGCAACGCGATGACACATGAGTGAACC 1799
| | | | |
Db 1265 GTTCTAAGCACTGGAACATCATGCACTGGAACCGCATGACCAACGAGATGGAACC 1324
| | | | |
QY 1800 CCGAGTGAAGCTACCTCAAGTGGAGCGCTACCAACTTCTCCCTGGGAGCGCTG 1859
| | | | |
Db 1325 CCAAGTGAAGCTACCTCAAGTGGAGCGCTACCAACTTCTCCCTGGGAGCGCTG 1384
| | | | |
QY 1860 ACTCCGCAAGCGGACGAGTGAAGAGGCGCTGACGCGGAGCTGAGAGTCCGCG 1919
| | | | |
Db 1385 ACGTGAAGAGCGGACGAGTGAAGAGGCGCTGACGCGGAGCTGAGAGTCCGCG 1444
| | | | |
QY 1920 CCGAGTGGCGCTGCGCTTCAATGCGCGCGCTGGAACGAGGCGGTGAGATCA 1979
| | | | |
Db 1445 ACGAGTGGCGCTGCGCTTCAATGCGCGCGCTGGAACGAGGCGGTGAGATCA 1504
| | | | |
QY 1980 TCGGGAACGCAATGCGCTGATTCGTAGCCAGAGACGTCGCTGATGCTGGGCAACG 2039
| | | | |
Db 1505 TCGGGAACGCAATGCGCTGATTCGTAGCCAGAGACGTCGCTGATGCTGGGCAACG 1564
| | | | |
QY 2040 GCGCCACGACCTGGAAGAGATGCTGCGGCACTTCGAGCGGAGACCAACGAAAGTGC 2099
| | | | |
Db 1565 GCGCCGCGGACCTGGAAGAGATGCTGCGGCACTTCGAGCGGAGACCAACGAAAGTGC 1624
| | | | |
QY 2100 GCGGATGAGTGGGTTCTCGGTGCGCTGCGGCAACGAGATCAACGCGGCGCGACCGCG 2159
| | | | |
Db 1625 GCGGATGAGTGGGTTCTCGGTGCGCTGCGGCAACGAGATCAACGCGGCGCGACCGTGC 1684
| | | | |
QY 2160 TCCATGCGCTCCCGGTTGAGCGCGGCTTGAACCAAGCTTACGATGCGCTTACG 2219
| | | | |
Db 1685 TGTGATGCTTCCCGCTTGAAGCTTCGCGGCTGGAACCAAGCTTACGATGCGCTTACG 1744
| | | | |
QY 2220 GCAACGTCCTCGTGTGTCAGCGCTCGCGGAGTGAAGGACCAACGCTCCGCTTTCAGCC 2279
| | | | |
Db 1745 GCAACGTCCTCGTGTGTCAGCGCTCGCGGAGTGAAGGACCAACGCTCCGCTTTCAGCC 1804
| | | | |

QY 2280 CTTTCAACACTCCGGGCTCGGCTGGAGCTTCGACCGGCGGAGGCGCAAGCTGATCG 2339
Db 1805 CGTTGGCGAGCGCGGGGCTCGGGTGAACCTTTGACCGGCGGAGCGCAAGAGCTGATCG 1864
QY 2340 AGGCGCTCGGGGCACTGCTCCGCACTTACCGGGACTACAGAGAGAGCTGGAGGGGCTTC 2399
Db 1865 AGGCGCTCAAGGCACTGCTCCGCAAGTACCGGGAAGTACCGGGAAGAGCTGGAGAGCTTC 1924
QY 2400 AGGAGCGGGGCACTGCTCGCAAGACTTCACTGGGAGACATCCGCAAGCTTTCAGAGAGC 2459
Db 1925 AGGCGCGGGGCACTGCTCGCAAGACTTCACTGGGAGACATCCGCGCTGAGCTTTCAGAGAGC 1984
QY 2460 TCCCTCAAGGCGCAAGTACAGAGC 2485
Db 1985 TCCCTGTCAGGCGCAAGTACAGAGC 2010

RESULT 11

US-10-109-048-1143
Sequence 1143, Application US/10109048
Publication No. US20040107461A1
GENERAL INFORMATION:
APPLICANT: COMBURI, PADMA
APPLICANT: KEELING, PETER L.
APPLICANT: RAMIREZ, NONA
APPLICANT: MCKEAN, ANGELA
APPLICANT: GAO, ZHONG
APPLICANT: GUAN, HANPING
TITLE OF INVENTION: GLUCAN CHAIN LENGTH DOMAINS
FILE REFERENCE: 2461-76
CURRENT APPLICATION NUMBER: US/10/109,048
CURRENT FILING DATE: 2003-03-04
PRIOR APPLICATION NUMBER: 60/279,720
PRIOR FILING DATE: 2001-03-30
NUMBER OF SEQ ID NOS: 1154
SOFTWARE: Patent In Ver. 2.1
SEQ ID NO 1143
LENGTH: 2865
TYPE: DNA
ORGANISM: Zea mays
US-10-109-048-1143

Query Match 43.4%; Score 1233.2; DB 19; Length 2865;
Best Local Similarity 84.3%; Pred. No. 0;
Matches 1388; Conservative 0; Mismatches 258; Indels 0; Gaps 0;
QY 840 CCGCGCTGCAAGCCCGCTGTACAGAGAGACTTTGGAGCTTCAAGAAATACATTGGCT 899
Db 1220 CTCCTACAGTTGAGCCATTAGTACAGAGGCCACTTGGATTCAAGAAATACATCGATT 1279
QY 900 TCGAGAGCGCCGTGAGGCGCAAGAGATGAGCTGGGCTTTGCAATGATGCGGCTCCT 959
Db 1280 TTGAGAGGCTGACGAGAGGAGAGATGATTCAGAGGCTTGTGACATGATGCTGCTT 1339
QY 960 TTGAACATCAAGAGAGCAATGATTCGAGACTTTGGCAGGGAGAGAGCATGAAGCTG 1019
Db 1340 TTGAACATTAAGGAGCAATGATTCGAGCTTTGGCCGGAGAGAGATGATTAAGACGTGA 1399
QY 1020 TCGTGTGCTGCTGATGATTTCTCCCTGGTGCAAAAAGAGTGTCTTGGAGATGTTGCCG 1079
Db 1400 TCGTGTGCTGCTGATGATTTCTCCCATGATGCAAAAAGAGTGTCTTGGAGATGTTGCCG 1459
QY 1080 GTGCTTTGCGCAAGGCTTTGGCGAGAGAGAGACATGTTGATGTTGGTGATCCAAAGT 1139
Db 1460 GAGCTTACCAAGGCTTTAGCGAGAGAGAGACATGTTGATGTTGGTGATCCAAAGT 1519
QY 1140 ATGAGGACATATGAGAGAGCTAGATGCTGAGAGTCCGAAATATCAAGGCTGCGAGAC 1199
Db 1520 ATGAGGACATATGAGAGAGCTTGTGATAGGAGATCCGAAATATCAAGGCTGCGAGAC 1579
QY 1200 AGGATATGAGAGATGATATTTCCATGCTTATATCATGATGAGATGATTTTGTGTTCAATG 1259

Db 1580 AGGACTAGAGTGAATATTTCCATGATGATTTATGATGAGAGTGCATCTTGTGTTCAATG 1639
QY 1260 AAGCTCTCTCTCTTCGACACCGCCAGAGAGCATTTATGAGGGGAGAGAGAGAAATTA 1319
Db 1640 ATGCGCTCTTTTCGGGACCGTCAAGATGCAATATATGAGGAGAGTATGAGAGAAATCA 1699
QY 1320 TGAAGCGCATATTTGTTTCTGCAAGGCGGCTGTGAGAGTCTTTGGCAGCTTCATGCG 1379
Db 1700 TGAAGCGCATATTTGTTTCTGCAAGGTTGCTGTTGAGAGTCTTTGGCAGCTTCATGCG 1759
QY 1380 GCGGTGCTCTTATGAGAGATGGAATCTGAGTGTATTTATGCAAAATGATGAGACGAGAC 1439
Db 1760 GTGGTGTGCTAGAGAGATGGAATTTGAGTTCATTTGCAATGATTTGAGCACTGAC 1819
QY 1440 TCCGCTGCTGATCTGAAAGCATATTAACAGGACATGTTGATGAGAGTACACTCGGT 1499
Db 1820 TCGTGTGTTTATCTGAAGGCAATTTACAGAGACATGAGTTAATGAGATCACTCGCT 1879
QY 1500 CCATTATGATGATATCAATTAATCGGCAACAGGCGGCTGAGCCAGTATGAAATTCGGT 1559
Db 1880 CGGTCTGCTATACATTAATCAATCGCCACAGAGGCGGCTGCTGTATGATGAAATTCGGT 1939
QY 1560 TCACCGAGTGTCTGAGCACTTACTGGAACACTTCAACTGTACGATGACATCCCGTGGTGTG 1619
Db 1940 ACATGAGCTTGTGAGACATTAACCTTCAACATTTGAGCTGTACGATCCGTGGTGGCG 1999
QY 1620 AGCAGGCCAATCACTTGGCGCGCGCGCTGAAGATGCGGAGACAGAGTGTGCTGAGAGCC 1679
Db 2000 AGCAGGCCAATCACTTGGCGCGCGCTGAAGATGCGGAGATGCGGAGTGTGATGAGAGCC 2059
QY 1680 CCGGCTTACTGTGAGAGCTCAAGAGCTGAGAGGCGGCTGGGGGCTTACGACATCATAC 1739
Db 2060 GCGGCTTACTGTGAGAGCTGAGAGAGCTGAGAGGCGGCTGGGGGCTTACGACATCATAC 2119
QY 1740 GGCAGAGACTGAGAGAGCCCGGCACTGTCAACAGGATGACAACTGAGATGAGAGTGAACC 1799
Db 2120 GTTCTTAACGACTGAGAGATCAATGAGCATGTGAAGGAGATGACCAACAGAGATGGAACC 2179
QY 1800 CCGAGTGAAGCTTCACTCAAGTGTGAGAGGCTGACCAACTTCTCCCTGGGAGAGCTGAG 1859
Db 2180 CCAAGTGAAGCTTCACTGCGGCTGAGAGGCTGACCAACTTCTCCCTGGGAGAGCTGAG 2239
QY 1860 ACTCGGCAAGCGGAGTGAAGAGAGGCTGAGAGGCTGAGAGGCTGAGAGTGGCG 1919
Db 2240 ACGTGAAGAGGAGTGAAGAGGCTGAGAGGCTGAGAGGCTGAGAGTGGCG 2299
QY 1920 CCGAGTGTGCTGCTGCGCTTCACTGCGGCTGAGAGGCTGAGAGGCTGAGAGTGAATCA 1979
Db 2300 ACGAGTGTGCTGCTGCGCTTCACTGCGGCTGAGAGGCTGAGAGGCTGAGAGTGAATCA 2359
QY 1980 TCGGAGAGCGGATGCGCTGAGATGATGAGAGAGAGCTGAGAGTGTGATGCTGAGAGAGC 2039
Db 2360 TCGGAGAGCGGATGCGCTGAGATGATGAGAGAGAGCTGAGAGTGTGATGCTGAGAGAGC 2419
QY 2040 GCGGCAAGACTTGAAGAGACTGTCGAGCACTTGAAGCGGAGAGAGAGAGAGAGTGC 2099
Db 2420 GCGGCGGAGAGCTGAGAGAGAGAGTGTGAGAGAGCTGAGAGAGAGAGAGAGAGTGC 2479
QY 2100 GCGGCTGAGTGGGCTTCTCGGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGC 2159
Db 2480 GCGGCTGAGTGGGCTTCTCGGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGC 2539
QY 2160 TCGTATGCGCTCGGCTGAGC 2219
Db 2540 TCGTATGCGCTTCCGCTTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGC 2599
QY 2220 GCAAGCTCCGCTGAGC 2279
Db 2600 GCAAGCTCCGCTGAGC 2659
QY 2280 CCTTCAACACTTCGGGCTCGGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGC 2339
Db 2660 CGTTGCGAGAGCGCGGCTCGGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGC 2719

Query 2340 AGGCGCTCGGGCAGTCCCTCCGACCTACCGGGACCTACAGAGAGCTGGAGGCCCTCC 2339
Db 2120 AGGCGCTCGGGCAGTCCCTCCGACCTACCGGGACCTACAGAGAGCTGGAGGCCCTCC 2779
Query 2400 AGGAGCGGGGATGTCGAGAGACTTCAGCTGGAGCATGCGCCAAAGCTTACAGAGAGC 2459
Db 2780 AGGCGCGGGGATGTCGAGAGACTTCAGCTGGAGCATGCGCCAAAGCTTACAGAGAGC 2839
Query 2460 TCCCTCCAGGCGCAAGTACCACTGG 2485
Db 2840 TCCCTCCAGGCGCAAGTACCACTGG 2865

RESULT 12
US-10-425-114-34283
; Sequence 34283, Application US/10425114
; Publication No. US20040034888A1
; GENERAL INFORMATION:
; APPLICANT: Liu, Jindong
; APPLICANT: Zhou, Yihua
; APPLICANT: Kovalic, David K.
; APPLICANT: Screen, Steven E
; APPLICANT: Tabaska, Jack E
; APPLICANT: Cao, Yongwei
; TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated with
; FILE REFERENCES: 38-21(5313)B
; CURRENT APPLICATION NUMBER: US/10/425.114
; NUMBER OF SEQ ID NOS: 2003-04-28
; SEQ ID NO 34283
; LENGTH: 1888
; TYPE: DNA
; ORGANISM: Zea mays
; FEATURES:
; OTHER INFORMATION: Clone ID: UC-ZWFLMO17241D01_FLI
US-10-425-114-34283

Query Match 40.9%; Score 1161.2; DB 18; Length 1888;
Best Local Similarity 82.9%; Pred. No. 3.2e-238;
Matches 1355; Conservative 0; Mismatches 238; Indels 41; Gaps 1;

Query 860 GTACAAAGACCTTTGGGACTTCAAGAAATACATTGGCTTCGAGAGCCCGTGAAGCC 919
Db 10 GTACAAAGACCTTTGGGACTTCAAGAAATACATTGGCTTCGAGAGCCCGTGAAGCC 69
Query 920 AAGGATGATGGCTGGCTGTGTCAGATGATGCGGGCTCTTGAACATCAACAGACAT 979
Db 70 AAGGATGATGGCTGGCTGTGTCAGATGATGCGGGCTCTTGAACATCAACAGACAT 129
Query 980 GATTCGCGACCTTTGGGAGGAGAACGTCATGAACGTGTCGTGCTGCTGTAATGT 1039
Db 130 GATTCGCGACCTTTGGGAGGAGAACGTCATGAACGTGTCGTGCTGCTGTAATGT 189
Query 1040 TCTCCCTGTCGCAAAACAGGTGTCGTGAGATGTTGCGGTGCTTTGCCCAAGCTTTG 1099
Db 190 TCTCCCTGTCGCAAAACAGGTGTCGTGAGATGTTGCGGTGCTTTGCCCAAGCTTTA 249
Query 1100 GCGAAGAGGAGACATCGTGTATAGTGTGTTACCAAGTATGGGAGCTATGAGAAAGCC 1159
Db 250 GCGAAGAGGAGACATCGTGTATAGTGTGTTACCAAGTATGGGAGCTATGAGAAAGCC 309
Query 1160 TACGATGTCGAGTCCGAAAAATACACAGAGCTGTCGAGACAGATATGAGAAATAT 1219
Db 310 TACGATGTCGAGTCCGAAAAATACACAGAGCTGTCGAGACAGATATGAGAAATAT 369
Query 1220 TTCCATGCTATATCATGATGAGTGTATTTGTTCATGACGTCTCTCTTTCCGACAC 1279
Db 370 TTCCATGCTATATCATGATGAGTGTATTTGTTCATGATGACGTCTCTCTTTCCGACAC 429
Query 1280 CGCAGAGAACATTTATGAGGAGCAGACAGAGAAATATGAGCCGATGATTTGTTC 1339

Db 430 CGTCAAGATGACATATATGAGGAGAAATAGGAGGAAATCATGAGCCGATGATTTGTTT 489
Query 1340 TGCAAGCCGCTGTGAGAGTTCTTTGGACCTTCCATGCGCGGTGTCCTTATGGGAT 1399
Db 490 TGCAAGGTTGCTGTGAGAGTTCTTTGGACCTTCCATGCGCGGTGTCCTTATGGGAT 549
Query 1400 GGAATCTGGGTTTATTTGCAAAATGATTTGGACACGCGACCTGCGCTGATCTGAAA 1459
Db 550 GGAATTTGGGTTTATTTGCAAAATGATTTGGACACGCGACCTGCGCTGATCTGAAA 609
Query 1460 GCATATTTACAGGAGCAATGTTGATGATGATGATGATGATGATGATGATGATGATGAT 1519
Db 610 GCATATTTACAGGAGCAATGTTGATGATGATGATGATGATGATGATGATGATGATGAT 669
Query 1520 ATCGCGACCAAGGCGCTGCGCCAGTATGATGATGATGATGATGATGATGATGATGATGAT 1579
Db 670 ATCGCGACCAAGGCGCTGCGCCAGTATGATGATGATGATGATGATGATGATGATGATGAT 729
Query 1580 TACCTGGAACATTCAGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1639
Db 730 TAC-----CGCCACATCTTTGCC 748
Query 1640 GCCGCGCTGAAGATGAGGAGCAAGTGTGCTGATGAGCCCGGATGATGATGAGAGCTC 1699
Db 749 GCCGCGCTGAAGATGAGGAGCAAGTGTGATGATGATGATGATGATGATGATGATGATGAT 808
Query 1700 AAGAGGTGAGGCGGCTGCGGCTTCAACATCATACGAGCAAGAGAGAGAGAGAGAGAG 1759
Db 809 AAGAGGTGAGGCGGCTGCGGCTTCAACATCATACGAGCAAGAGAGAGAGAGAGAGAG 868
Query 1760 CGCGGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1819
Db 869 AATGCAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 928
Query 1820 AAGTCGAGAGGCTACCAACTTCTCCCTGGGAGAGCTGAGACTCGGCAAGCGGAGAGTC 1879
Db 929 CGGTCGAGAGGCTACCAACTTCTCCCTGGGAGAGCTGAGACTCGGCAAGCGGAGAGTC 988
Query 1880 AAGAGGCGCTGAGAGGAG 1939
Db 989 AAGAGGCGCTGAGAGGAG 1048
Query 1940 TTCAATGCGCGCTGAGAGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1999
Db 1049 TTCAATGCGCGCTGAG 1108
Query 2000 ATCGTAG 2059
Db 1109 ATCGTAG 1168
Query 2060 ATGCTGCGGACCTTGAAGCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2119
Db 1169 ATGCTGCGGACCTTGAAGCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1228
Query 2120 GTGCGCTGCGGAG 2179
Db 1229 GTGCGCTGCGGAG 1288
Query 2180 GAGCGGTGCGGAG 2239
Db 1289 GAGCGGTGCGGAG 1348
Query 2240 GCGGTGCGGAG 2299
Db 1349 GCGGTGCGGAG 1408
Query 2300 GGGTGAACCTTTACAGCGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2359
Db 1409 GGGTGAACCTTTACAGCGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1468
Query 2360 CGCACCTACCGGAG 2419
Db 1469 GACACGTAACCGGAG 1528

OY	2037	CCGGCCGGCAGCACTGTGAGAGCATGCTTCGGCAGCTTCGAGCCGGGAGCACCAGACAAG	2096
Db	1568	CCGGGCCCACTGACCTTGGAAGAAATGCTGCAGACACTTGGAGCCGGAGCATCCCAACAAG	1627
OY	2097	TGCGCGGGTGGAGTGGGGTTCTCCGCGCGCTCGCGCACCCGATCAACGGCGGGCGCCGACG	2156
Db	1628	TGCGCGGGTGGAGTGGGGTTCTCCGCTCTAATGCTGCAATCGCATACGCCCGGCGCCAGCG	1687
OY	2157	CGCTCCTCATGCCCTCCCGGTTTCGAGCCGTGCGGGTTGAAACCACTTTACGCATGGCCT	2216
Db	1688	TGCTGCTGATGCTCCCTCCCGCTTTCG---CCGGCGGGCTGAACCAACTCTACCGCATGGCAT	1744
OY	2217	ACGGCAGCGTCCCGTGGTGGACGCGCGCGGGGGTGAAGGAGACAGTGGCGCGCTTCG	2276
Db	1745	ACGGCAGCGTCCCTGTGTGTGACGCGCGTGGCGGGCTTCAGGAGAACCGTGGCGCGCTTCG	1804
OY	2277	ACCCCTTCAACCACTCCGGGCTCGGGTGGACGTTTCGACCGCGCCGAGCGGCACAAAGCTGA	2336
Db	1805	ACCGTTTCGGCGAGCGCGGGGCTCGGGTGGACTTTTGAACCGCGCGGAGCCAAACAAGCTGA	1864
OY	2337	TCCGAGGCGTGGGGACATGCTCTCCGCACTTACCGGACTACAAAGAAAGCTGGAAGGGGCC	2396
Db	1865	TCCGAGGTCTAGCCACTGCTTCGACAGTACCAAACTAAGAGAGAGAGCTGGAAGAGTCTC	1924
OY	2397	TCCAGAGACGCGGAGATGTCCGAGACATTCACTGGAGCATGCCCAAGCTCTACAGAG	2456
Db	1925	TCCAGAGCGCGGGCATGTCCGCAAACTCAACTGGAGCAACGGCGGCTGAGCTCTACAGAG	1984
OY	2457	ACGTCCTCTCAAGGCCAAGT	2477
Db	1985	ACGTCCTGTCAAGTACCAGT	2005

RESULT 14
US-10-425-115-149880

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Sequence 149880, Application US/10425115
Publication No. US200400214272A1
GENERAL INFORMATION:
APPLICANT: La Rosa, Thomas J.
APPLICANT: Kovalic, David K.
APPLICANT: Zhou, Yihua
APPLICANT: Cao, Yongwei
TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants
FILE REFERENCE: 38-21(53222) B
CURRENT APPLICATION NUMBER: US/10/425,115
CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 369326
SEQ ID NO 149880
LENGTH: 2813
TYPE: DNA
ORGANISM: Zea mays
FEATURE:
OTHER INFORMATION: Clone ID: MRT4577_68215C.1
US-10-425-115-149880

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Query Match	37.2%	Score 1058.6;	DB 20;	Length 2813;
Best Local Similarity	79.1%;	Pred. No. 7.1e-271;		
Matches 1272;	Conservative	0;	Mismatches 334;	Indels 3;
			Gaps 14;	

[illegible]

QY	1063	1CTTGGAAATGTGTCCGGTGTCTTGGCCCAAGGCTTTGGCCGAAGAGACATCGTTAT	1122
Db	799	CTTGGAAATGTGTGGGTGCTTTGGCCCAAGGCTTGGCCGAAGAGACATCGTTAT	858
QY	1123	GGTGTGGTACCAAGTATGGGACTATAGAGAAAGCCATCGATGCGAGTCCGAAATA	1182
Db	859	GGTGTGTATCCAAAGATATGGAGAGTATGCCGAAGCCCGGAGTTAGTGTAAAGACG	918
QY	1183	CTACAGGCTCTGGACAGATATGGAATGAAATTAATTCATGCTTATATCATGAGT	1242
Db	919	TTACAGGTAGCTGGACAGATATGGAAGTTACTTATTTTCACTTTCATGTATGAGT	978
QY	1243	TGATTTTGTTCATTTGACGCTCTCTTTCGACACCGCCAGAGACATTTATGGGG	1302
Db	979	TGATTTGTATCTCTAGAGAGCCCTCTCCCTCCGACCGGCAACAATATTTATGGGG	1038
QY	1303	CAGCAGAGAGAAATTATGAGGCCATTTGTTCGAAGGCCGCTGTGAGGTTCC	1366
Db	1039	AGAAAGATGTGATTTTGAAGCGCATATTTGTTCGAAGGCCGCTGTGAGGTTCC	1096
QY	1363	TTGGCACGTTCCATGCGGCGGTGTCCCTTATGGGAGTGAATCTGTGTTATTGCAAA	1422
Db	1099	ATGGATGTCTCATATGTGCGGTACTGTCTATGTGATGTGCAACTTATGTTTCAATTCGTA	1158
QY	1423	TGATTTGCAACGGCACTCTGCTGTCTATCTGAAGCATATTAACAGGACATGTGTT	1482
Db	1159	TGATTTGCAATCCCACTTCTGCTGTCTATCTGAAGCATATTAACAGGACATGTGTT	1218
QY	1483	GATCAGATGACCTGGGTCCATTATGTGATTCATTAACATGCGGACAGGGCCGTGGCC	1542
Db	1219	GATCAGATGTCTGCTGTGTGTGTGTGATACAAACATGTCTATCATCGGTCGTGGCC	1278
QY	1543	AGTAGATTAATTCGCCGTTCAACGAGTTGCCGAGACATTAAGTGAACACTTCAGACTTA	1602
Db	1279	TGTAGACATCTTGTCTCAATTTTGACTTGCTCCGGAACATCAATCGACACTTCGAACTGTA	1338
QY	1603	CGACCCCGTGGGTGTGAGCAGCGCAACTTCTCGCGCGGCTTGAAGATGGCGGACCA	1662
Db	1339	TGACAAACTGTGTGGGATTCACACAAAGTTTTGTGCGGGGCTGAAAGACGAGACCG	1398
QY	1663	GGTGTGTGTGAGCCCCGGGTACTGTGTGGAACTCAAGCGGTGAAGGGCGGCTGGG	1722
Db	1399	GGTGTGTGACCTGTGACATGTGTACTATGTGGAACTGAAGCTTCGGAAGGCGGCTGGG	1458
QY	1723	GCTTCAGCACTCATACGGCAGGAAGCATGGAACCGCGGCAATGTCACAGGCAATGTA	1782
Db	1459	CTTCAGCACTCATTAACAGGAAGCATGTGAAGCTGAGGGCAATGTCGAAGGCAATGTA	1518
QY	1783	CAACATGAGTGAACCCCGAGGTGAGAGTTCACCTCAAGTCGAGCGCTACACCACTT	1842
Db	1519	CATGAGGAGTGAAGCCCGCTGTGAGAGTCACTCACTCGACGATCAACCACTA	1578
QY	1843	CTCCCTGGGAGCGCTGCACTTCGGCAAGCGGCAGTGCAAGAGCCCTGCAAGCGAGCT	1902
Db	1579	CACCTTGAGACGCTGGAACCGGCAAGCGGCAAGTGAAGGCGCCCTGCAAGCGAGCT	1638
QY	1903	GGGCTGAGAGTCCGGCGCGAGCGGTGCGGTCTGGCTTATGGGCGGCTGAGCGGCA	1962
Db	1639	GGGCTGAGAGTCCGGCGCGAGCGGTGCGGTCTGGCTTATGGGCGGCTGAGCGACCA	1698
QY	1963	GAAAGGGGTGAGATTCATCGCGAGCGGCATGCTCGATCGTGAAGCAGAGACGTGAGCT	2022
Db	1699	GAAAGGGGTGACATTCATTCGCGAGCGGATCACTGATGTGCGGGGCAAGACGTGAGCT	1758
QY	2023	GGTATGTGTGGGCAACGGCGGCGCAGCACTGAGAGACATGTGTGCGCACTTTCGAGCGGA	2082
Db	1759	CGTATGTGTGGGCAACGGCGGCGCAGCACTGAGAGACATGTGTGCGGCTTTCGAGTGGGA	1818
QY	2083	GCAACACGACAAAGTGGCGGGGTGGGTGGGTTCTCGTGTGCGCTGCGGACCGGATCAC	2142
Db	1819	GCAACACGACAAAGTGGCGGGGTGGGTGGGTTCTCGTGTGCGCTTTCGAGCGGATCAC	1878
QY	2143	GGCGGGGCGCACCGCTCTCATGAGCCCTCCCGGTTGAGCGCTGTGCGGCTTGAACAGCT	2202

[illegible]

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RESULT 15
US-10-336-753-48
; Sequence 48, Application US/10336753
; Publication No. US20030226176A1
; GENERAL INFORMATION:
; APPLICANT: Guan, Haping
; APPLICANT: Keeling, Peter L.
; TITLE OF INVENTION: PLANT LIKE STARCHES AND THE METHOD OF MAKING THEM IN
; TITLE OF INVENTION: HOSTS
; FILE REFERENCE: 2461-52
; CURRENT APPLICATION NUMBER: US/10/336,753
; CURRENT FILING DATE: 2003-01-06
; PRIOR APPLICATION NUMBER: US/09/402,254
; PRIOR FILING DATE: 1999-10-01
; PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: PCT/US98/06660
; PRIOR FILING DATE: EARLIER FILING DATE: 1998-04-03
; PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 60/042,939
; PRIOR FILING DATE: EARLIER FILING DATE: 1997-04-04
; NUMBER OF SEQ ID NOS: 77
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 48
; LENGTH: 2423
; TYPE: DNA
; ORGANISM: Zea mays
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (join(1..2094, 2098..2103, 2107..2304, 2308..2421))
US-10-336-753-48

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Query Match	36.9%	Score 1049;	DB 17;	Length 2423;
Best Local Similarity	78.7%	Pred. No. 2.4e-268;		
Matches 1266; Conservative	0;	Mismatches 340;	Indels 3;	Gaps 1;

OY	886	AAATACCTTGGCTTCAGAGAGCCCGTGAAGCCAGAGATATGGCTGGGTGTTGCAGA	945
Db	492	GGAAAGCATAGGCATCGCTGAACCGGTGAAATGCTAAGCTATGACCTCCGGCTAACGA	551
OY	946	TGATGCG---GCTCTTTGAACATCACCAGAACCATATTCGCGACCTTGGCAGGGGA	1002
Db	552	TGCGGGCGAGTGTCTCTTATGACAGGAGATATATACTGGCCCTTTGGCTGGGCC	611
OY	1003	GAACTCATGAACTGTGTCTGTGTGGCTGTGAATGTTCTCCCTGGTGCAAAACAGTGG	1062
Db	612	TAAATGTATGAACGTCGTGTGTGGCTTCTGAATGTCTCTTCTTCAGACAGGTGG	671
OY	1063	TCTTGAATGTGCGCGGTCTTTGGCCAAAGCTTTGGCGAAGAGACATCTGTAT	1122
Db	672	CTTGGAAATGTCTGGGGTGTCTTGGCTTAAGGCTCTGGCGAGAGACACCGTGTAT	731

OY	1123	GGTTGTGTGTCACAGGATATGAGGACCTATATGAGAAAGCCCTACAGATGTCCGAGTCCGAAATA	1182
Db	732	GGGTGTATATCCAAAGATATATGAGAGTATGCGAAAGCCCGGAGATTAGTGTATAGAGACG	791
OY	1183	CTACAGAGCTGCTGAGACAGATATGAAAGTAAATATATTCCTCATGCTTATATATCATGTAGAGT	1242
Db	792	TTACAGAGTACGTGACAGAGATTACAGAGTTACTTATTTTCACTTACATTTGATGAGAGT	851
OY	1243	TGATTTTGTGTTCATGTACGCTCTCTCTTTCCGACACCGCCAGAGAACATTTATGCGGG	1302
Db	852	TGATTTGTATTTCTGTAAGAGCCCTCCCTCCGCGACCGGACCAATATATTTATGCGGGG	911
OY	1303	CAGACAGACAGAAATTATGAAAGCCAGATTTTGTGTGCAAGGCCCTGTCCGAGTTC	1362
Db	912	AGAAAGATTTGATATTTTGAAGCGCACGATTTTGTTCGAAAGGCCCTGTGAGTTC	971
OY	1363	TTGGCAGGTTCCATAGCGCGCGGTGTCCTTATATGAGGATGGAATATGTGTTTATTTGCAAA	1422
Db	972	ATGGTATGTCTTCATATGAGCGGTACTGTCTATGTGATGCGAACATTAGTTTTCATTGCTAA	1031
OY	1423	TGATTTGGCACACGCGACTCTCTGCTGTCTATCTGAAAGCATATTTACAGGGACATGTTT	1482
Db	1032	TGATTTGGCATATCCGCACTTCTGCTGTCTATCTTAAAGCCGATATTAACGGGACATGTTT	1091
OY	1483	GATCAGTACACTGTGCTCATTTATGTGTATATATACATATGCGGACCAAGGCCCTGTGCC	1542
Db	1092	GATCAGATATGCTCTGCTGTGTGTGTGATACACAACTTGTCTATCAGGATCGTGTGCC	1151
OY	1543	AGTAGATGAATATCCCGTTACCCGAGTGGCCGTGAGCATACCTGTGGAACATTCCAGACTGTA	1602
Db	1152	TGTATAGCATCTTCATCAATTTTGACTTGTCTGAAACATACATGTGACCATTTCAACACTGTA	1211
OY	1603	CGACCCCGGTGGTGTGTGAGCACGCGCACTATTCGCGCGGCTGTGAAGATGGCGGACCA	1662
Db	1212	TGACAAACTTGTGTGGGATCACAGCAACGTTTTTGTGCGGGGCTGAAGACGCGACACG	1271
OY	1663	GGTTGTGTGTGTGAGCCCGGGATCTCTGTGGAGCTCAAGCGGTGAGGGCGGCTGTGGG	1722
Db	1272	GGTGTGTACCTTATGTGCAATGTGCTACATGTGGGAGCTGAAGACTTCGGAAGCGGGTGGGG	1331
OY	1723	GCCTTCACGACATCATATGCGGAGAACGCACTGGAAGACC CGGGGCAATGTTCAACGGCATCGA	1782
Db	1332	CTCTCAGACATCATTAACCAAGAACGACTGGAACCTGACGGGCACTGTGAACGGCATTCGA	1391
OY	1783	CAACATGAGTGTGAAACCCCGAGTGTGAGACGTTCACCTCAAGTCGAGCGGCTTACACCACTT	1842
Db	1392	CATAGACGAGTGTGAAACCCCGCTGTGTGAGATGTGACCTCACTCCGACGACATACACCACTA	1451
OY	1843	CTCCCTGGGAGCGCTGGAATTCGGGACAAAGCGGCACTGCACAGAGAGCCTTCGACGCGAGCT	1902
Db	1452	CACGTTGAGAGCGCTTGACACCGGCAAGCGGCAAGTGCAAAGCCGCTCTGACGCGGACGCT	1511
OY	1903	GGGCTTCAGAGTCCCGGCGGACGATGTCGGCTGTCTGTGCTTCAATCGGCGCGCTTCGACGCGGCA	1962
Db	1512	GGGCTTCAGAGTCCCGGCGGACGACGTCGACATGTCGGGTTCAATCGGCGCGCTTCGACACCA	1571
OY	1963	GAAAGGCGGTGAGATCATATCGCGAGCGCATATGCTGTGATCGTGTGACGAGGACGTGACGT	2022
Db	1572	GAAAGGCGGTGACATCATATCGCGACGAGATTCACATGTGATCGCGGGGAGAGACGTGTGACGT	1631
OY	2023	GGTCATGCTGTGGGACCGGCGCGGACGACCTTGAGAGCATGTCGTGGGCACTTTCGAGCGGGA	2082
Db	1632	CGTATGCTGTGGGACCGGCGCGGCGGACCTGTGAGAGCATGCTGTGGGCGGTTTCGAGTCSGA	1691
OY	2083	GCACCAAGACAAAGTGTGCGGAGTGTGGGTTCCTCGTGTGCTGTGGCGCACCGGATATAC	2142
Db	1692	GCAAGAGGACAAAGTGTGCGGAGTGTGGGTTCCTCGTGTGCTGTGGCGCACCGCATATAC	1751
OY	2143	GGCGGAGCGGACCGGCTTCATATGAGCTTCGCGGTTTGTGAGAGCGGTGCGGAGTTGAACAGACT	2202
Db	1752	GGCGGAGCGGACCATCTCTGTGTATGTGCGGTTCGAGCGCTGTGACGAGCTTGAACAGACT	1811
OY	2203	TTAGCGCATGGCTTACGGAACGTCCTCCCTGTGTGTGACGCGGTGTGGCGGAGTGAAGGACAC	2262

Db	1812	CTACGCGCATGGCGGTACGGGACCGTGCCGTGGTGACGCGGTGGGGGGCTCCGGGACAC	1871
Qy	2283	CGTGCGCGCGTTCCGACCCCTTAACCACTCCCGGCTCGGGTGAAGTTGACCGGCGCGA	2322
Db	1872	GGTGGCGCGGTTCGACCGGTTCACGACACCGGGCTCGGGTGAAGTTGACCGGCGCGA	1931
Qy	2323	GGCGCACAAGCTGATCGAGGCGCTCGGGCACTGCTCCGCACTACCGGGACTTACAAGGA	2382
Db	1932	GGCGAACGGGATGATCGAGCGGCTCTCGCACTGCTTACACCAAGTACCGGAATTACAAGGA	1991
Qy	2383	GAGCTGAGGGGCTTCCAGGACGGCGCATGTGCGAGGACTTCAAGCTGGGAGCATGCCG	2442
Db	1992	GAGCTGGCGCGGCTGCAAGGCGCGCGCATGGCCGAGGACTTCAAGCTGGGACCAAGCGCG	2051
Qy	2443	CAAGCTTACGAGGACGTCCTCTCAAGGCCAAGTACCAAGTGTGAGC	2491
Db	2052	CGTGCTGTATGAGGAGTGCTGTCGAAGCGAAGTACCAAGTGTGAGCG	2100

Search completed: June 11, 2005, 00:52:13
 Job time : 1669 secs

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